WEST Search History

Hide Items Restore Clear Cancel

DATE: Wednesday, May 31, 2006

Hide?	Hit Count				
DB=PGPB,USPT,EPAB; PLUR=YES; OP=ADJ					
	L51	L50 not @ay>2002	242		
	L50	L49 and polymer	342		
	L49	L48 and L11	375		
	L48	L45 and L3	520		
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	L45	L44 or L43 or L42	43146		
	L44	(424/484 424/486 424/489 424/490 424/491)![CCLS]	7810		
	L43	(514/962 514/963)![CCLS]	773		
	L42	(435/6)![CCLS]	34779		
	L41	L40 and L9	18		
	L40	L36 not L39	18		
	L39	L36 not L37	112		
	L38	L37 not L36	337		
	L37	L29 or L28	355		
	L36	L35 not @ay>2001	130		
	L35	L34 and L9	390		
	L34	L33 and L11	478		
	L33	L32 and L2	676		
	L32	L31 and L7	716		
	L31	L30 or L29 or L28	1570		
	L30	L27.clm.	1396		
	L29	L27.ab.	337		
	L28	L27.ti.	163		
	L27	L26 or L19	11051		
	L26	interleukin NEAR2 12	3542		
	L25	L24 not @ay>2002	16		
	L24	L23 and L9	34		
	L23	L22 and L2	37		
	L22	L21 and L11	40		
	L21	L20 and L7	58		

L20	L19.ab.	258
L19	IL NEAR2 12	9726
L18	L17 not @py>2001	8
L17	L16 and L9	54
L16	L7 and L15	64
L15	L14 and L3	113
L14	Lll.ab.	33131
L13	L3 and L6	3453
L12	L10 and L11	2
L11	liposom\$ or microspher\$ or encapsula\$	265751
L10	L8 and L9	5
L9	oral\$	207750
L8	L7 and L5	5
L7	gastrointestin\$ or esophag\$ or gastic? or intestin\$ or colorectal\$	123970
L6	gastrointestin\$ or esophag\$ or gastic? or intestin? or colorectal?	92112
L5	L2 and L4	8
L4	L3.ab.	25
L3	sulindac	5294
L2	cancer\$ or tumor\$ or neoplas\$	190275
L1	egilmez.in.	7

END OF SEARCH HISTORY

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NEWS 9 OCT 27 DIOGENES content streamlined
NEWS 10 OCT 27 EPFULL enhanced with additional content
NEWS 11 NOV 14 CA/CAplus - Expanded coverage of German academic research NEWS 12 NOV 30 REGISTRY/ZREGISTRY on STN(R) enhanced with experimental spectral property data NEWS 13 DEC 05 CASREACT(R) - Over 10 million reactions available NEWS EXPRESS DECEMBER 02 CURRENT VERSION FOR WINDOWS IS V8.01, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 02 DECEMBER 2005. V8.0 USERS CAN OBTAIN THE UPGRADE TO V8.01 AT http://download.cas.org/express/v8.0-Discover/ **NEWS HOURS** STN Operating Hours Plus Help Desk Availability NEWS INTER **General Internet Information** NEWS LOGIN Welcome Banner and News Items NEWS PHONE Direct Dial and Telecommunication Network Access to STN NEWS WWW CAS World Wide Web Site (general information) Enter NEWS followed by the item number or name to see news on that specific topic. All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties. * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * * * FILE 'HOME' ENTERED AT 09:22:46 ON 14 DEC 2005 => file reg COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION **FULL ESTIMATED COST** 0.21 FILE 'REGISTRY' ENTERED AT 09:22:55 ON 14 DEC 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 American Chemical Society (ACS) Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem. STRUCTURE FILE UPDATES: 13 DEC 2005 HIGHEST RN 869843-02-7

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* available and contains the CA role and document type information. *

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

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=> E "SULINDAC"/CN 25
E1
       1
           SULIKOL K/CN
E2
       1
           SULIN/CN
E3
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          SULINDAC B .OMEGA.-N-METHYL-L-ARGININE SALT/CN
E4
E5
       1
           SULINDAC B .OMEGA.-N-NITRO-L-ARGININE METHYL ESTER SALT/
           SULINDAC B .OMEGA.-N-NITRO-L-ARGININE SALT/CN
E6
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E7
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SULINDAC SULFIDE/CN
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L1
=> file caplus
COST IN U.S. DOLLARS
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FULL ESTIMATED COST
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Opitz, Oliver G.; Harada, Hideki; Suliman, Yasir;

Division of Gastroenterology, University of

Rhoades, Ben; Sharpless, Norman E.; Kent, Ralph; Kopelovich, Levy; Nakagawa, Hiroshi; Rustgi, Anil K.

Pennsylvania, Philadelphia, PA, 19104-2144, USA

AUTHOR(S):

CORPORATE SOURCE:

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SOURCE:
                   Journal of Clinical Investigation (2002), 110(6),
              761-769
              CODEN: JCINAO; ISSN: 0021-9738
PUBLISHER:
                    American Society for Clinical Investigation
DOCUMENT TYPE:
                        Journal
LANGUAGE:
                    English
                              THERE ARE 44 CITED REFERENCES AVAILABLE
REFERENCE COUNT:
                          44
                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L12 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:
                          2002:259707 CAPLUS
DOCUMENT NUMBER:
                           136:379639
TITLE:
                Primary chemoprevention of familial adenomatous
             polyposis with sulindac
AUTHOR(S):
                    Giardiello, Francis M.; Yang, Vincent W.; Hylind,
             Linda M.; Krush, Anne J.; Petersen, Gloria M.;
             Trimbath, Jill D.; Piantadosi, Steven; Garrett,
              Elizabeth; Geiman, Deborah E.; Hubbard, Walter;
              Offerhaus, Johan A.; Hamilton, Stanley R.
CORPORATE SOURCE:
                           Dep. Med., Johns Hopkins Univ. Sch. Med., Baltimore,
             MD, USA
SOURCE:
                   New England Journal of Medicine (2002), 346(14),
              1054-1059
              CODEN: NEJMAG; ISSN: 0028-4793
PUBLISHER:
                    Massachusetts Medical Society
DOCUMENT TYPE:
                        Journal
LANGUAGE:
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REFERENCE COUNT:
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L12 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:
                          2001:564792 CAPLUS
DOCUMENT NUMBER:
                           135:127230
TITLE:
                Method for inhibiting a tumor
INVENTOR(S):
                     Nair, Muraleedharan G.; Bourquin, Leslie D.; Seeram,
             Navindra P.; Kang, Soo-Young
PATENT ASSIGNEE(S):
                        Michigan State University, USA
                   PĆT Int. Appl., 27 pp.
SOURCE:
              CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                     English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:
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                    KIND DATE
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                                     WO 2001-US1196
  WO 2001054516
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
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PRIORITY APPLN. INFO .:
                                    US 2000-494077
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                             THERE ARE 2 CITED REFERENCES AVAILABLE FO
REFERENCE COUNT:
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                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L12 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:
                          2001:476884 CAPLUS
DOCUMENT NUMBER:
                           135:282815
TITLE:
                Sulindac in familial adenomatous polyposis: Evaluation
             by nuclear morphometry
AUTHOR(S):
                    Fernandez-Lopez, F.; Conde-Freire, R.; Cadarso-Suarez,
             C.; Garcia-Iglesias, J.; Puente-Dominguez, J. L.;
             Potel-Lesquereux, J.
CORPORATE SOURCE:
                           General Surgery Department, Hospital Clinico
             Universitario, Santiago de Compostela, Spain
                   European Journal of Surgery (2001), 167(5), 375-381
SOURCE:
             CODEN: EUJSEH; ISSN: 1102-4151
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PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal LANGUAGE: **English**

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib 5-9

L12 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:260877 CAPLUS

DOCUMENT NUMBER: 133:217169

TITLE: Sulindac and acetylsalicylic acid (ASA) - clinical

relevance in familial adenomatous polyposis

AUTHOR(S): Winde, G.

CORPORATE SOURCE: Klinik und Poliklinik fur Allgemeine Chirurgie der

WWU, Munster, D-48129, Germany

Falk Symposium (1999), 109 (Colorectal Cancer), 235-255 SOURCE:

CODEN: FASYDI; ISSN: 0161-5580

Kluwer Academic Publishers PUBLISHER:

DOCUMENT TYPE: Journal: General Review

English LANGUAGE:

REFERENCE COUNT: THERE ARE 91 CITED REFERENCES AVAILABLE 91

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:147314 CAPLUS

DOCUMENT NUMBER: 132:273995

TITLE: Inhibition of rat colon tumors by sulindac and

sulindac sulfone is independent of K-ras (codon 12)

mutation

De Jong, Tanya A.; Skinner, Stewart A.; AUTHOR(S):

Malcontenti-Wilson, Cathy; Vogiagis, Daphne; Bailey, Michael; Van Driel, Ian R.; O'Brien, Paul E.

CORPORATE SOURCE: Department of Surgery, Monash University Medical

School, Melbourne, 3181, Australia

SOURCE: American Journal of Physiology (2000), 278(2, Pt. 1),

G266-G272

CODEN: AJPHAP; ISSN: 0002-9513

PUBLISHER: American Physiological Society

DOCUMENT TYPE: Journal

LANGUAGE: **English**

REFERENCE COUNT: THERE ARE 45 CITED REFERENCES AVAILABLE 45

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:18902 CAPLUS

DOCUMENT NUMBER: 132:44655

TITLE: Rectal epithelial apoptosis in familial adenomatous

polyposis patients treated with sulindac

Keller, J. J.; Offerhaus, G. J. A.; Polak, M.; AUTHOR(S):

Goodman, S. N.; Zahurak, M. L.; Hylind, L. M.;

Hamilton, S. R.; Giardiello, F. M.

CORPORATE SOURCE: Department of Medicine, The Johns Hopkins University

School of Medicine, Baltimore, MD, 21205, USA

SOURCE: Gut (1999), 45(6), 822-828

CODEN: GUTTAK; ISSN: 0017-5749

BMJ Publishing Group PUBLISHER:

DOCUMENT TYPE: Journal

English LANGUAGE:

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:277228 CAPLUS

DOCUMENT NUMBER: 124:331957

Sulindac induced regression of ***colorectal*** TITLE:

adenomas in familial adenomatous polyposis: Evaluation

of predictive factors

AUTHOR(S): Giardiello, F. M.; Offerhaus, J. A.; Tersmette, A. C.;

Hylind, L. M.; Krush, A. J.; Brensinger, J. D.;

Booker, S. V.; Hamilton, S. R.

CORPORATE SOURCE: School Medicine, Johns Hopkins University, Baltimore,

MD, 21287, USA

SOURCE: Gut (1996), 38(4), 578-581 CODEN: GUTTAK; ISSN: 0017-5749 PUBLISHER: **BMJ Publishing Group** DOCUMENT TYPE: Journal LANGUAGE: **English** ACCESSION NUMBER: 1991:529697 CAPLUS DOCUMENT NUMBER: 115:129697 Lung tumorigenicity of NNK given ***orally*** to TITLE: A/J mice: its application to chemopreventive efficacy

L12 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

studies

AUTHOR(S): Castonguay, Andre; Pepin, Pierrot; Stoner, Gary D.

CORPORATE SOURCE: Sch. Pharm., Laval Univ., Quebec, QC, G1K 7P4, Can.

SOURCE: Experimental Lung Research (1991), 17(2), 485-99

CODEN: EXLRDA; ISSN: 0190-2148

DOCUMENT TYPE: Journal

LANGUAGE: English

=> d abs 9

L12 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

AB The ability of five chemopreventive agents to inhibit 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK)-induced lung tumors in A/J mice was detd. The carcinogen was administered in the drinking water during 7 wk (at doses of 9.2 to 3.1 mg/mouse). Three chemopreventive agents: (dose, g/kg diet) ellagic acid (4.0), 2(3)-BHA (5.0), and sulindac (0.13) inhibited the multiplicity of lung adenomas by 52, 88, and 52%, resp., when compared to NNK controls. .beta.-Carotene + retinol (2.14 + 0.009), in combination, and selenium (0.0022) were ineffective. NNK was absorbed more rapidly from the duodenum than from the stomach and was metabolized in both tissues. The activation of NNK by .alpha.-carbon hydroxylation and its deactivation by pyridine N-oxidn. was more extensive in the duodenum than in the stomach. Carbonyl redn. of NNK was 10 times higher in the duodenum. Liver microsomes were more active than lung microsomes in the .alpha.-carbon hydroxylation of NNK, suggesting that some liver isoenzymes of cytochrome P 450 have a high affinity for NNK. Pyridine N-oxidn, was five times more extensive in lung microsomes than in liver microsomes. Collectively, these results demonstrate that NNK given ***orally*** to A/J mice provides a suitable model from which to assess the relative activity and mechanisms of action of chemopreventive agents in pulmonary carcinogenesis.

=> d kwic 9

L12 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

TI Lung tumorigenicity of NNK given ***orally*** to A/J mice: its application to chemopreventive efficacy studies

AB . . . N-oxidn. was five times more extensive in lung microsomes than in liver microsomes. Collectively, these results demonstrate that NNK given ***orally*** to A/J mice provides a suitable model from which to assess the relative activity and mechanisms of action of chemopreventive. . .

Intestine, metabolism

(duodenum, (methylnitrosamino)(pyridyl)butanone metab. by, chemopreventive agents against lung neoplasm effect on)

IT 68-26-8, Retinol 476-66-4, Ellagic acid 7235-40-7, .beta.-Carotene 14124-67-5, Selenite 25013-16-5 ***38194-50-2***, Sulindac

RL: BIOL (Biological study)

((methylnitrosamino)(pyridyl)butanone-induced lung ***neoplasm*** response to)

=> d ibib abs keic 8

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CBIB ----- AN, plus Compressed Bibliographic Data
DALL ----- ALL, delimited (end of each field identified)
DMAX ----- MAX, delimited for post-processing
FAM ----- AN, PI and PRAI in table, plus Patent Family data
FBIB ----- AN, BIB, plus Patent FAM
IND ----- Indexing data
IPC ----- International Patent Classifications
MAX ----- ALL, plus Patent FAM, RE
PATS ------ PI, SO
SAM ------ CC, SX, TI, ST, IT
SCAN ------ CC, SX, TI, ST, IT (random display, no answer numbers;
        SCAN must be entered on the same line as the DISPLAY,
        e.g., D SCAN or DISPLAY SCAN)
STD ----- BIB, IPC, and NCL
IABS ----- ABS, indented with text labels
IALL ----- ALL, indented with text labels
IBIB ----- BIB, indented with text labels
IMAX ----- MAX, indented with text labels
ISTD ----- STD, indented with text labels
OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels
SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations
HIT ----- Fields containing hit terms
HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)
        containing hit terms
HITRN ----- HIT RN and its text modification
HITSTR ----- HIT RN, its text modification, its CA index name, and
        its structure diagram
HITSEQ ----- HIT RN, its text modification, its CA index name, its
        structure diagram, plus NTE and SEQ fields
FHITSTR ---- First HIT RN, its text modification, its CA index name, and
        its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
        structure diagram, plus NTE and SEQ fields
KWIC ----- Hit term plus 20 words on either side
OCC ----- Number of occurrence of hit term and field in which it occurs
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codes. For a list of the display field codes, enter HELP DFIELDS at
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All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR,
FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC
to view a specified Accession Number.
ENTER DISPLAY FORMAT (BIB):end
=> d ibib abs kwic 8
L12 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:
                             1996:277228 CAPLUS
DOCUMENT NUMBER:
                             124:331957
                  Sulindac induced regression of ***colorectal***
TITLE:
               adenomas in familial adenomatous polyposis: Evaluation
               of predictive factors
                      Giardiello, F. M.; Offerhaus, J. A.; Tersmette, A. C.;
AUTHOR(S):
               Hylind, L. M.; Krush, A. J.; Brensinger, J. D.;
               Booker, S. V.; Hamilton, S. R.
                             School Medicine, Johns Hopkins University, Baltimore,
CORPORATE SOURCE:
               MD, 21287, USA
                     Gut (1996), 38(4), 578-581
SOURCE:
               CODEN: GUTTAK; ISSN: 0017-5749
                      BMJ Publishing Group
PUBLISHER:
                          Journal
DOCUMENT TYPE:
LANGUAGE:
                      Enalish
AB Background-Sulindac, a non-steroidal anti-inflammatory drug, causes
   regression of ***colorectal*** adenomas in patients with familial
```

adenomatous polyposis (FAP) but the response is variable. Specific clin. factors predictive of sulindac induced regression have not been studied. Methods-22 patients with FAP were given sulindac 150 mg ***orally*** twice a day. Polyp no. and size were detd. before treatment and at three months. The relation of nine clin. factors to polyp regression (per cent of baseline polyp no. after treatment) was evaluated by univariate and multivariate anal. Results-After three months of sulindac, polyp no. had decreased to 45 per cent of baseline and polyp size to 50 per cent of baseline (p<0.001 and p<0.01, resp.). Univariate anal. showed greater polyp regression in older patients (p=0.004), those with previous colectomy and ileorectal anastomosis (p=0.001), and patients without identifiable mutation of the APC gene responsible for FAP (p=0.05). With multivariate regression anal., response to sulindac treatment was assocd. with previous subtotal colectomy. Conclusions-Sulindac treatment seems effective in producing regression of ***colorectal*** adenomas of FAP patients with previous subtotal colectomy regardless of baseline polyp no. and size. Changed sulindac metab., reduced area of the target mucosa, or changed epithelial characteristics after ileorectal anastomosis may explain these findings.

- TI Sulindac induced regression of ***colorectal*** adenomas in familial adenomatous polyposis: Evaluation of predictive factors
- AB Background-Sulindac, a non-steroidal anti-inflammatory drug, causes regression of ***colorectal*** adenomas in patients with familial adenomatous polyposis (FAP) but the response is variable. Specific clin. factors predictive of sulindac induced regression have not been studied. Methods-22 patients with FAP were given sulindac 150 mg ***orally*** twice a day. Polyp no. and size were detd. before treatment and at three months. The relation of nine clin. factors to polyp regression (per cent of baseline polyp no. after treatment) was evaluated by univariate and multivariate anal. Results-After three months of sulindac, polyp no. had decreased to 45 per cent of baseline and polyp size to 50 per cent of baseline (p<0.001 and p<0.01, resp.). Univariate anal. showed greater polyp regression in older patients (p=0.004), those with previous colectomy and ileorectal anastomosis (p=0.001), and patients without identifiable mutation of the APC gene responsible for FAP (p=0.05). With multivariate regression anal., response to sulindac treatment was assocd. with previous subtotal colectomy. Conclusions-Sulindac treatment seems effective in producing regression of ***colorectal*** adenomas of FAP patients with previous subtotal colectomy regardless of baseline polyp no. and size. Changed sulindac metab., reduced area of the target mucosa, or changed epithelial characteristics after ileorectal anastomosis may explain these findings.
- ST sulindac ***colorectal*** adenomas adenomatous polyposis
- IT Neoplasm inhibitors
 - (large ***intestine*** , sulindac induced regression of
 colorectal adenomas in familial adenomatous polyposis in humans)
- IT ***Intestine*** , neoplasm
 - (large, inhibitors, sulindac induced regression of ***colorectal*** adenomas in familial adenomatous polyposis in humans)
- T ***38194-50-2*** , Sulindac
 - RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (sulindac induced regression of ***colorectal*** adenomas in familial adenomatous ***polyposis*** in humans)

=> d ibib abs kwic 2

L12 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 2002:259707 CAPLUS

DOCUMENT NUMBER: 136:379639

TITLE: Primary chemoprevention of familial adenomatous

polyposis with sulindac

AUTHOR(S): Giardiello, Francis M.; Yang, Vincent W.; Hylind,

Linda M.; Krush, Anne J.; Petersen, Gloria M.; Trimbath, Jill D.; Piantadosi, Steven; Garrett, Elizabeth; Geiman, Deborah E.; Hubbard, Walter;

Offerhaus, Johan A.; Hamilton, Stanley R.

CORPORATE SOURCE: Dep. Med., Johns Hopkins Univ. Sch. Med., Baltimore,

MD, USA

SOURCE: New England Journal of Medicine (2002), 346(14), 1054-1059

CODEN: NEJMAG; ISSN: 0028-4793 PUBLISHER: Massachusetts Medical Society **DOCUMENT TYPE:** Journal LANGUAGE: **English** AB Background: Familial adenomatous polyposis is caused by a germ-line mutation in the adenomatous polyposis coli gene and is characterized by the development of hundreds of ***colorectal*** adenomas and, ***colorectal*** cancer. Nonsteroidal antiinflammatory eventually, drugs can cause regression of adenomas, but whether they can prevent adenomas is unknown. Methods: The authors conducted a randomized, double-blind, placebo-controlled study of 41 young subjects (age range, 8 to 25 yr) who were genotypically affected with familial adenomatous polyposis but phenotypically unaffected. The subjects received either 75 or 150 mg of sulindac ***orally*** twice a day or identical-appearing placebo tablets for 48 mo. The no. and size of new adenomas and side effects of therapy were evaluated every four months for four years, and

the levels of five major prostaglandins were serially measured in biopsy specimens of normal-appearing ***colorectal*** mucosa. Results: After four years of treatment, the av. rate of compliance exceeded 76 % in the sulindac group, and mucosal prostaglandin levels were lower in this group than in the placebo group. During the course of the study, adenomas developed in 9 of 21 subjects (43 %) in the sulindac group and 11 of 20

subjects in the placebo group (55 %) (P = 0.54). There were no

significant differences in the mean no. (P = 0.69) or size (P = 0.17) of polyps between the groups. Sulindac did not slow the development of adenomas, according to an evaluation involving linear longitudinal

methods. Conclusions: Std. doses of sulindac did not prevent the development of adenomas in subjects with familial adenomatous polyposis.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

- AB Background: Familial adenomatous polyposis is caused by a germ-line mutation in the adenomatous polyposis coli gene and is characterized by the development of hundreds of ***colorectal*** adenomas and. eventually, ***colorectal*** cancer. Nonsteroidal antiinflammatory drugs can cause regression of adenomas, but whether they can prevent adenomas is unknown. Methods: The authors conducted a randomized, double-blind, placebo-controlled study of 41 young subjects (age range, 8 to 25 yr) who were genotypically affected with familial adenomatous polyposis but phenotypically unaffected. The subjects received either 75 or 150 mg of sulindac ***orally*** twice a day or identical-appearing placebo tablets for 48 mo. The no. and size of new adenomas and side effects of therapy were evaluated every four months for four years, and the levels of five major prostaglandins were serially measured in biopsy specimens of normal-appearing ***colorectal*** mucosa. Results: After four years of treatment, the av. rate of compliance exceeded 76 % in the sulindac group, and mucosal prostaglandin levels were lower in this group than in the placebo group. During the course of the study, adenomas developed in 9 of 21 subjects (43 %) in the sulindac group and 11 of 20 subjects in the placebo group (55 %) (P = 0.54). There were no significant differences in the mean no. (P = 0.69) or size (P = 0.17) of polyps between the groups. Sulindac did not slow the development of adenomas, according to an evaluation involving linear longitudinal methods. Conclusions: Std. doses of sulindac did not prevent the development of adenomas in subjects with familial adenomatous polyposis.
- IT Prostaglandins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(***colorectal*** mucosa prostaglandin levels as measure of sulindac local effect in humans with familial adenomatous polyposis)

T Antitumor agents

(***colorectal*** , adenoma; primary chemoprevention of familial adenomatous polyposis with sulindac in humans)

IT ***Intestine*** , neoplasm

(***colorectal*** , inhibitors, adenoma; primary chemoprevention of familial adenomatous polyposis with sulindac in humans)

Intestine , neoplasm

(familial polyposis; primary chemoprevention of familial adenomatous polyposis with sulindac in humans)

IT ***Intestine***

IT

(large, mucosa; ***colorectal*** mucosa prostaglandin levels as measure of sulindac local effect in humans with familial adenomatous polyposis)

IT 363-24-6, Prostaglandin E2 551-11-1, Prostaglandin F2.alpha. 13367-85-6, Prostaglandin B2 41598-07-6, Prostaglandin D2 58962-34-8, 6-keto-Prostaglandin F1.alpha.

```
RL: BSU (Biological study, unclassified); BIOL (Biological study)
    ( ***colorectal*** mucosa prostaglandin levels as measure of
    sulindac local effect in humans with familial adenomatous polyposis)
    ***38194-50-2*** , Sulindac
IT
   RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological
  activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
    (primary chemoprevention of familial adenomatous '
                                                     *polyposis***
    with sulindac in humans)
=> d his
  (FILE 'HOME' ENTERED AT 09:22:46 ON 14 DEC 2005)
  FILE 'REGISTRY' ENTERED AT 09:22:55 ON 14 DEC 2005
        E "SULINDAC"/CN 25
L1
         1 S E3
  FILE 'CAPLUS' ENTERED AT 09:23:34 ON 14 DEC 2005
L2
       1426 S L1
L3
      254068 S GASTROINTESTINGAL OR ESOPHAG? OR GASTIC? OR INTESTII
L4
     1099978 S CANCER? OR TUMOR? OR NEOPLAS? OR POLYP?
L5
      65506 S L4 AND L3
L6
       234 S L5 AND L2
L7
      243958 S ORAL?
L8
        30 S L7 AND L6
       186 S L2 (L) L4
L9
L10
        121 S L9 AND L3
L11
         14 S L10 AND L7
L12
         9 S L11 NOT PY>2002
=> s lipsom? or microspher? or encapsulat? or polymer?
      74 LIPSOM?
     27180 MICROSPHER?
     55572 ENCAPSULAT?
    1820552 POLYMER?
     84067 POLYMD
     84067 POLYMD
         (POLYMD)
     31147 POLYMG
    326031 POLYMN
     8505 POLYMNS
    327118 POLYMN
         (POLYMN OR POLYMNS)
    1885881 POLYMER?
         (POLYMER? OR POLYMD OR POLYMG OR POLYMN)
L13
     1945587 LIPSOM? OR MICROSPHER? OR ENCAPSULAT? OR POLYMER?
=> s I13 and I12
L14
        0 L13 AND L12
=> s I4 and I2
L15
       443 L4 AND L2
=> s I9 and I13
        12 L9 AND L13
1 16
=> s I16 not py>2002
    3346380 PY>2002
L17
        3 L16 NOT PY>2002
=> d ibib 1-3
L17 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:
                          2001:430708 CAPLUS
DOCUMENT NUMBER:
                          135:236055
TITLE:
                Rat colorectal tumors treated with a range of
             nonsteroidal anti-inflammatory drugs show altered
             cyclooxygenase-2 and cyclooxygenase-1 splice variant
             mRNA expression levels
                    Vogiagis, Daphne; Brown, Wendy; Glare, Eric M.;
AUTHOR(S):
             O'Brien, Paul E.
CORPORATE SOURCE:
                           Department of Surgery, Monash University Medical
             School, Alfred Hospital, Prahran, 3181, Australia
```

SOURCE: Carcinogenesis (2001), 22(6), 869-874

CODEN: CRNGDP; ISSN: 0143-3334

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal LANGUAGE: English

REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:457250 CAPLUS

DOCUMENT NUMBER: 129:76490

TITLE: Method for treating a tumor with a chemotherapeutic

agent and nonemulsified ultrapurified

polymerized hemoglobin solution

INVENTOR(S): Teicher, Beverly A.; Rausch, Carl W.; Hopkins, Robert

E., II

PATENT ASSIGNEE(S): Dana-Farber Cancer Institute, USA; Biopure Corp.

SOURCE: U.S., 16 pp., Cont.-in-part of U. S. Ser. No. 94,501.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 5776898 A 19980707 US 1995-477110 19950607

US 5679638 A 19971021 US 1993-94501 19930720 PRIORITY APPLN. INFO.: US 1991-699769 A2 19910514

US 1993-94501 A2 19930720

REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

A2 19930720

L17 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:689536 CAPLUS

DOCUMENT NUMBER: 127:326520
TITLE: Method for treating a tumor with a chemotherapeutic

agent

INVENTOR(S): Teicher, Beverly A.; Rausch, Carl W.; Hopkins, Robert

E., II

PATENT ASSIGNEE(S): Biopure Corporation, USA; Dana Farber Cancer Institute

SOURCE: U.S., 12 pp., Cont.-in-part of U.S. Ser. No.

699,769,abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 5679638 A 19971021 US 1993-94501 19930720 US 5776898 A 19980707 US 1995-477110 19950607

PRIORITY APPLN. INFO.: US 1991-699769 B2 19910514

US 1993-94501

=> d ibib abs kwic 1

L17 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:430708 CAPLUS

DOCUMENT NUMBER: 135:236055

TITLE: Rat colorectal tumors treated with a range of

nonsteroidal anti-inflammatory drugs show altered

cyclooxygenase-2 and cyclooxygenase-1 splice variant

mRNA expression levels
AUTHOR(S): Vogiagis, Daphne; Bro

Vogiagis, Daphne; Brown, Wendy; Glare, Eric M.;

O'Brien, Paul E.

CORPORATE SOURCE: Department of Surgery, Monash University Medical

School, Alfred Hospital, Prahran, 3181, Australia

SOURCE: Carcinogenesis (2001), 22(6), 869-874 CODEN: CRNGDP; ISSN: 0143-3334

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

- AB Nonsteroidal anti-inflammatory drugs (NSAIDs) reduce tumor mass by increasing tumor cell apoptosis and decreasing cell proliferation. The classically recognized targets for NSAID action are the two isoforms of the cyclooxygenase (COX) gene, which is responsible for prostaglandin prodn. In the rat, the COX-1 gene expresses an alternatively spliced mRNA COX-1 splice variant (SV) which may, at best, code for a truncated COX-1 protein. Previously, it was reported that COX-1SV mRNA is differentially expressed in the ageing stomach. In this study, carcinogen-treated rats were treated for 23 wk with the NSAIDs celecoxib, sulindac or sulindac sulfone, while untreated rats received vehicle alone. The nos. and vols. of tumor per animal were recorded and histol. was performed. The competitive ***polymerase*** chain reaction, was used to det. whether COX gene expression was altered in colorectal tumors and in regions of adjacent and distant macroscopically normal intestine, from vehicle- or NSAID-treated rats. In addn., COX-1 and COX-2 were immunolocalized in the same tumor and normal colonic tissue. Tumors from animals treated with vehicle or celecoxib expressed elevated levels of COX-2 mRNA in comparison with the adjacent normal mucosa. In contrast, tumors from sulindac- and sulindac sulfone-treated rats expressed less COX-2 mRNA than tumors from vehicle-treated rats. The expression of COX-1 mRNA remained unchanged in all tissues examd. However, COX-1SV mRNA contents were elevated in colorectal tumors and reduced after NSAID treatment to the values in normal colonic mucosa. The results indicate that the antineoplastic actions of NSAIDs may be attributed to COX-dependent and/or COX-independent mechanisms of action. The presence and differential expression of COX-1SV mRNA was also demonstrated in colon tumors. COX-1SV mRNA represents 2% of the total COX-1 mRNA expressed and its role in colon cancer remains to be established.
- REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- AB Nonsteroidal anti-inflammatory drugs (NSAIDs) reduce tumor mass by increasing tumor cell apoptosis and decreasing cell proliferation. The classically recognized targets for NSAID action are the two isoforms of the cyclooxygenase (COX) gene, which is responsible for prostaglandin prodn. In the rat, the COX-1 gene expresses an alternatively spliced mRNA COX-1 splice variant (SV) which may, at best, code for a truncated COX-1 protein. Previously, it was reported that COX-1SV mRNA is differentially expressed in the ageing stomach. In this study, carcinogen-treated rats were treated for 23 wk with the NSAIDs celecoxib, sulindac or sulindac sulfone, while untreated rats received vehicle alone. The nos. and vols. of tumor per animal were recorded and histol. was performed. The competitive ***polymerase*** chain reaction, was used to det. whether COX gene expression was altered in colorectal tumors and in regions of adjacent and distant macroscopically normal intestine, from vehicle- or NSAID-treated rats. In addn., COX-1 and COX-2 were immunolocalized in the same tumor and normal colonic tissue. Tumors from animals treated with vehicle or celecoxib expressed elevated levels of COX-2 mRNA in comparison with the adjacent normal mucosa. In contrast, tumors from sulindac- and sulindac sulfone-treated rats expressed less COX-2 mRNA than tumors from vehicle-treated rats. The expression of COX-1 mRNA remained unchanged in all tissues examd. However, COX-1SV mRNA contents were elevated in colorectal tumors and reduced after NSAID treatment to the values in normal colonic mucosa. The results indicate that the antineoplastic actions of NSAIDs may be attributed to COX-dependent and/or COX-independent mechanisms of action. The presence and differential expression of COX-1SV mRNA was also demonstrated in colon tumors. COX-1SV mRNA represents 2% of the total COX-1 mRNA expressed and its role in colon cancer remains to be established.
- IT ***38194-50-2*** , Sulindac 59973-80-7, Sulindac sulfone 169590-42-5, Celecoxib

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(colorectal ***tumors*** treated with nonsteroidal

(colorectal ***tumors*** treated with nonsteroidal anti-inflammatory drugs show altered cyclooxygenase-2 and cyclooxygenase-1 splice variant mRNA expression)

=> file medline COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE ENTRY SESSION 64.77 TOTAL

77 70.01

FILE 'MEDLINE' ENTERED AT 09:35:28 ON 14 DEC 2005

FILE LAST UPDATED: 8 DEC 2005 (20051208/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 will soon be available. For details on the 2005 reload, enter HELP RLOAD at an arrow promt (=>). See also:

http://www.nlm.nih.gov/mesh/http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s SULINDAC/CN L18 919 SULINDAC/CN

=> s cancer? or tumor? or neoplas? or polyp?
547932 CANCER?
758323 TUMOR?
1455946 NEOPLAS?
155044 POLYP?

L19 1879233 CANCER? OR TUMOR? OR NEOPLAS? OR POLYP?

=> s gastrointestingal or esophag? or gastic? or intestin? or colorect?

1 GASTROINTESTINGAL

101857 ESOPHAG?

50 GASTIC?

293936 INTESTIN?

45036 COLORECT?

L20 428581 GASTROINTESTINGAL OR ESOPHAG? OR GASTIC? OR INTESTIN? T?

=> s l19 and l20 L21 125328 L19 AND L20

=> s l21 and l18 L22 175 L21 AND L18

=> s liposom? or microspher? or encapsulat? or polymer? 30623 LIPOSOM? 21357 MICROSPHER? 15072 ENCAPSULAT? 351141 POLYMER?

L23 407843 LIPOSOM? OR MICROSPHER? OR ENCAPSULAT? OR POLYMER?

=> s l23 and l22 L24 8 L23 AND L22

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=> d ibib 1-3

L25 ANSWER 1 OF 6 MEDLINE on STN
ACCESSION NUMBER: 2002696841 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12458338
TITLE: Effects of long-term administration of sulindac on APC mRNA and apoptosis in colons of rats treated with azoxymethane.
AUTHOR: Kishimoto Y; Yashima K; Morisawa T; Ohishi T; Marumoto A; Sano A; Idobe-Fujii Y; Miura N; Shiota G; Murawaki Y;

Hasegawa J CORPORATE SOURCE: Division of Pharmacotherapeutics, Department of Pathophysiological and Therapeutic Science, Faculty of Medicine, Tottori University, 86 Nishicho, Yonago 683-8503, Japan.. ykishimo@grape.med.tottori-u.ac.jp Journal of cancer research and clinical oncology, (2002 SOURCE: Nov) 128 (11) 589-95. Electronic Publication: 2002-10-04. Journal code: 7902060. ISSN: 0171-5216. Germany: Germany, Federal Republic of Journal; Article; (JOURNAL ARTICLE) PUB. COUNTRY: DOCUMENT TYPE: LANGUAGE: **English** FILE SEGMENT: **Priority Journals** 2003Ó1 **ENTRY MONTH:** ENTRY DATE: Entered STN: 20021217 Last Updated on STN: 20030118 Entered Medline: 20030117 L25 ANSWER 2 OF 6 MEDLINE on STN ACCESSION NUMBER: 2001065648 MEDLINE DOCUMENT NUMBER: PubMed ID: 11093808 TITLE: Growth-suppressive effect of non-steroidal anti-inflammatory drugs on 11 colon- ***cancer*** cell lines and fluorescence differential display of genes whose expression is influenced by sulindac. **AUTHOR:** Akashi H; Han H J; lizaka M; Nakamura Y CORPORATE SOURCE: Laboratory of Molecular Medicine, Human Genome Center, Institute of Medical Science, University of Tokyo, Tokyo, Japan. SOURCE: International journal of cancer. Journal international du cancer, (2000 Dec 15) 88 (6) 873-80. Journal code: 0042124. ISSN: 0020-7136. PUB. COUNTRY: **United States DOCUMENT TYPE:** Journal; Article; (JOURNAL ARTICLE) LANGUAGE: **English** FILE SEGMENT: **Priority Journals ENTRY MONTH:** 200012 **ENTRY DATE:** Entered STN: 20010322 Last Updated on STN: 20010322 Entered Medline: 20001222 L25 ANSWER 3 OF 6 MEDLINE on STN ACCESSION NUMBER: 2001064500 MEDLINE DOCUMENT NUMBER: PubMed ID: 11076880 TITLE: Sulindac and a cyclooxygenase-2 inhibitor, etodolac, increase APC mRNA in the colon of rats treated with azoxymethane. **AUTHOR:** Kishimoto Y; Takata N; Jinnai T; Morisawa T; Shiota G; Kawasaki H; Hasegawa J CORPORATE SOURCE: Department of Clinical Pharmacology, Faculty of Medicine, Tottori University, 86 Nishicho, Yonago 683-8503, Japan... ykishimo@grape.med.tottori-u.ac.jp Gut, (2000 Dec) 47 (6) 812-9. Journal code: 2985108R. ISSN: 0017-5749. SOURCE: PUB. COUNTRY: **ENGLAND: United Kingdom** DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) LANGUAGE: **English** FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals **ENTRY MONTH:** 200012 ENTRY DATE: Entered STN: 20010322 Last Updated on STN: 20010322 Entered Medline: 20001222 => d ibib 4-6 L25 ANSWER 4 OF 6 MEDLINE on STN

ACCESSION NUMBER: 2000295032 MEDLINE **DOCUMENT NUMBER:** PubMed ID: 10833474 TITLE: Par-4, a proapoptotic gene, is regulated by NSAIDs in human colon carcinoma cells. **AUTHOR:** Zhang Z; DuBois R N CORPORATE SOURCE: Division of Gastroenterology, Department of Medicine and Cell Biology, Vanderbilt University Medical Center,

Veterans Affairs Medical Center, Nashville, Tennessee, USA.

CONTRACT NUMBER: **DK47297 (NIDDK)** P30 CA68485 (NCI) PO CA77839 (NCI) SOURCE: Gastroenterology, (2000 Jun) 118 (6) 1012-7. Journal code: 0374630. ISSN: 0016-5085. PUB. COUNTRY: United States **DOCUMENT TYPE:** Journal; Article; (JOURNAL ARTICLE) LANGUAGE: **English FILE SEGMENT:** Abridged Index Medicus Journals; Priority Journals **ENTRY MONTH:** 200006 ENTRY DATE: Entered STN: 20000629 Last Updated on STN: 20021219 Entered Medline: 20000621 L25 ANSWER 5 OF 6 MEDLINE on STN ACCESSION NUMBER: 1999333404 MEDLINE DOCUMENT NUMBER: PubMed ID: 10403841 Redistribution of activated caspase-3 to the nucleus during TITLE: butyric acid-induced apoptosis. **AUTHOR:** Mandal M; Adam L; Kumar R CORPORATE SOURCE: Cell Growth Regulation Laboratory, University of Texas M.D. Anderson Cancer Center, Houston, Texas, 77030, USA. SOURCE: Biochemical and biophysical research communications, (1999 Jul 14) 260 (3) 775-80. Journal code: 0372516. ISSN: 0006-291X. PUB. COUNTRY: **United States DOCUMENT TYPE:** Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English **FILE SEGMENT: Priority Journals ENTRY MONTH:** 199908 **ENTRY DATE:** Entered STN: 19990827 Last Updated on STN: 20020420 Entered Medline: 19990816 L25 ANSWER 6 OF 6 MEDLINE on STN ACCESSION NUMBER: 96334961 MEDLINE DOCUMENT NUMBER: PubMed ID: 8707116 TITLE: Sulindac increases the expression of APC mRNA in malignant colonic epithelial cells: an in vitro study. **AUTHOR:** Schnitzler M; Dwight T; Robinson B G CORPORATE SOURCE: Molecular Genetics Unit, Kolling Institute of Medical Research, Royal North Shore Hospital, St Leonards, NSW, Australia. Gut, (1996 May) 38 (5) 707-13. SOURCE: Journal code: 2985108R. ISSN: 0017-5749. PUB. COUNTRY: **ENGLAND: United Kingdom** DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) LANGUAGE: **English** Abridged Index Medicus Journals; Priority Journals FILE SEGMENT: **ENTRY MONTH:** 199609 ENTRY DATE: Entered STN: 19960919 Last Updated on STN: 19970203 Entered Medline: 19960910 => d ibib abs kwic 4 L25 ANSWER 4 OF 6 MEDLINE on STN **MEDLINE** ACCESSION NUMBER: 2000295032 DOCUMENT NUMBER: PubMed ID: 10833474 TITLE: Par-4, a proapoptotic gene, is regulated by NSAIDs in human colon carcinoma cells. **AUTHOR:** Zhang Z; DuBois R N CORPORATE SOURCE: Division of Gastroenterology, Department of Medicine and Cell Biology, Vanderbilt University Medical Center, Veterans Affairs Medical Center, Nashville, Tennessee, USA. **DK47297 (NIDDK)** CONTRACT NUMBER: P30 CA68485 (NCI) PO CA77839 (NCI) SOURCE: Gastroenterology, (2000 Jun) 118 (6) 1012-7. Journal code: 0374630. ISSN: 0016-5085. PUB. COUNTRY: **United States** DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) **English** LANGUAGE:

Abridged Index Medicus Journals; Priority Journals FILE SEGMENT: **ENTRY MONTH:** 200006 **ENTRY DATE:** Entered STN: 20000629 Last Updated on STN: 20021219 Entered Medline: 20000621 AB BACKGROUND & AIMS: Many reports indicate that nonsteroidal anti-inflammatory drugs (NSAIDs) have antineoplastic effects, but the precise molecular mechanism(s) responsible are unclear. We evaluated the effect of cyclooxygenase (COX) inhibitors (NSAIDs) on human colon carcinoma cells (HCA-7) and identified several genes that are regulated after treatment with NS-398, a selective COX-2 inhibitor. METHODS: Differential display ***polymerase*** chain reaction cloning techniques were used to identify genes regulated by treatment with NSAIDs and selective COX-2 inhibitors. RESULTS: A prostate apoptosis response 4 (Par-4) gene was up-regulated after NSAID treatment. Par-4 was first isolated from prostate carcinoma cells undergoing apoptosis, and expression of Par-4 sensitized ***cancer*** cells to apoptotic stimuli. Par-4 levels were increased in cells treated with COX inhibitors such as NS-398, nimesulide, SC-58125, and sulindac sulfide. Treatment of HCA-7 cells with these agents also induced apoptotic cell death. CONCLUSIONS: The results suggest that regulation of Par-4 contributes to the proapoptotic effects of high-dose COX inhibitors (NSAIDs) by serving as a downstream mediator leading to initiation of programmed cell death. AB . . . cells (HCA-7) and identified several genes that are regulated after treatment with NS-398, a selective COX-2 inhibitor. METHODS: Differential display ***polymerase*** chain reaction cloning techniques were used to identify genes regulated by treatment with NSAIDs and selective COX-2 inhibitors. RESULTS: A. . . was up-regulated after NSAID treatment. Par-4 was first isolated from prostate carcinoma cells undergoing apoptosis, and expression of Par-4 sensitized ***cancer*** cells to apoptotic stimuli. Par-4 levels were increased in cells treated with COX inhibitors such as NS-398, nimesulide, SC-58125, and. pharmacology *Apoptosis: DE, drug effects Apoptosis: GE, genetics Blotting, Northern Blotting, Western Carrier Proteins: AN, analysis *Carrier Proteins: GE, genetics *** Colonic Neoplasms*** Cyclooxygenase Inhibitors: PD, pharmacology **DNA Fragmentation** Gene Expression: DE, drug effects Gene Expression: PH, physiology Humans *** Intestinal Mucosa: CH, chemistry*** ****Intestinal Mucosa: CY, cytology*** *** Intestinal Mucosa: EN, enzymology*** *Intracellular Signaling Peptides and Proteins *Nitrobenzenes: PD, pharmacology Protein Kinase C: ME, metabolism Pyrazoles: PD, pharmacology Support, U.S. Gov't, Non-P.H.S. Research Support, U.S. Gov't, P.H.S. *Sulfonamides: PD, pharmacology Sulindac: AA, analogs & derivatives Sulindac: PD, pharmacology
*** Tumor Cells, Cultured*** 123653-11-2 (N-(2-cyclohexyloxy-4-nitrophenyl)methanesulfonamide); 162054-19-5 (1-((4-methylsulfonyl)phenyl)-3-trifluoromethyl-5-(4fluorophenyl)pyrazole); 32004-67-4 (sulindac sulfide); ***38194-50-2*** (Sulindac)***; 51803-78-2 (nimesulide) => d his (FILE 'HOME' ENTERED AT 09:22:46 ON 14 DEC 2005) FILE 'REGISTRY' ENTERED AT 09:22:55 ON 14 DEC 2005 E "SULINDAC"/CN 25 L1 1 S E3

FILE 'CAPLUS' ENTERED AT 09:23:34 ON 14 DEC 2005

1426 S L1

254068 S GASTROINTESTINGAL OR ESOPHAG? OR GASTIC? OR INTESTI L3 **L4** 1099978 S CANCER? OR TUMOR? OR NEOPLAS? OR POLYP? L5 65506 S L4 AND L3 L6 234 S L5 AND L2 **L7** 243958 S ORAL? L8 30 S L7 AND L6 L9 186 S L2 (L) L4 L10 121 S L9 AND L3 L11 14 S L10 AND L7 L12 9 S L11 NOT PY>2002 1945587 S LIPSOM? OR MICROSPHER? OR ENCAPSULAT? OR POLYMER: L13 L14 0 S L13 AND L12 L15 443 S L4 AND L2 L16 12 S L9 AND L13 3 S L16 NOT PY>2002 L17 FILE 'MEDLINE' ENTERED AT 09:35:28 ON 14 DEC 2005 L18 919 S SULINDAC/CN 1879233 S CANCER? OR TUMOR? OR NEOPLAS? OR POLYP? L19 L20 428581 S GASTROINTESTINGAL OR ESOPHAG? OR GASTIC? OR INTESTI L21 125328 S L19 AND L20 L22 175 S L21 AND L18 407843 S LIPOSOM? OR MICROSPHER? OR ENCAPSULAT? OR POLYMEF L23 L24 8 S L23 AND L22 6 S L24 NOT PY>2002 L25 => file caplus COST IN U.S. DOLLARS SINCE FILE TOTAL **ENTRY** SESSION **FULL ESTIMATED COST** 3.52 73.53 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) TOTAL SINCE FILE SESSION ENTRY CA SUBSCRIBER PRICE 0.00 -3.65 FILE 'CAPLUS' ENTERED AT 09:38:57 ON 14 DEC 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS) Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited. FILE COVERS 1907 - 14 Dec 2005 VOL 143 ISS 25 FILE LAST UPDATED: 13 Dec 2005 (20051213/ED) Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at: http://www.cas.org/infopolicy.html => s liposom? or microspher? or encapsulat? or polymer? 48683 LIPOSOM? 27180 MICROSPHER? 55572 ENCAPSULAT? 1820552 POLYMER? **84067 POLYMD 84067 POLYMD** (POLYMD) **31147 POLYMG** 326031 POLYMN 8505 POLYMNS 327118 POLYMN

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(POLYMN OR POLYMNS)

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L29 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:
                        2005:591975 CAPLUS
DOCUMENT NUMBER:
                        143:53482
               Method for inhibiting the growth of gastrointestinal
TITLE:
            tract tumors
INVENTOR(S):
                  Egilmez, Nejat K.
PATENT ASSIGNEE(S):
                      USA
                 U.S. Pat. Appl. Publ., 21 pp.
SOURCE:
            CODEN: USXXCO
DOCUMENT TYPE:
                      Patent
LANGUAGE:
                   English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
  PATENT NO.
                  KIND DATE
                                  APPLICATION NO.
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DATE _____ -----US 2005147689 Α1 20050707 US 2003-748003 20031230 20050630 CA 2491338 AA CA 2004-2491338 20041223 PRIORITY APPLN. INFO.: US 2003-748003 A 20031230

L29 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 2005:14227 CAPLUS DOCUMENT NUMBER: 142:107439
TITLE: Cardiolipin synthesis inhibitor for treatment of cardiovascular disorders, and obesity

INVENTOR(S): Jamil, Haris; Ahmad, Moghis U.; Ahmad, Imran

PATENT ASSIGNEE(S): Neopharm, Inc., USA SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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WO 2005000318	A2			20040623					
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LK, LR, LS, L	T, LÙ, L	V, MA, MI	D, MG, MK, MN, MW, MX	K, MZ, NA, NI,					
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW									
RW: BW, GH, GM, KE, LS, MW, MZ, NÁ, SĎ, SĹ, SŹ, TŹ, UĠ, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,									
EE, ES, FI, FI	R, GB, (GR, HU, IE	E, IT, LU, MC, NL, PL, PT	, RÓ, SÉ,					
SI, SK, TR, B SN, TD, TG	F, BJ, C	F, CG, CI	, CM, GA, GN, GQ, GW,	ML, MR, NE,					

PRIORITY APPLN. INFO.: US 2003-480669P P 20030623 L29 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 2004:877933 CAPLUS DOCUMENT NUMBER: 141:365149 Anti-PSGL-1 antibodies and scFv fragments for TITLE: diagnosis, prognosis and therapy of cancer. metastasis, autoimmune disease and inflammation INVENTOR(S): Levanon, Avigdor; Ben-Levy, Rachel; Plaksin, Daniel; Szanton, Esther; Hagai, Yocheved; Mar-Chaim, Hagit Hoch PATENT ASSIGNEE(S): Israel U.S. Pat. Appl. Publ., 49 pp. SOURCE: CODEN: USXXCO DOCUMENT TYPE: Patent LANGUAGE: **English** FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. US 2004208877 20030630 Α1 20041021 US 2003-611588 P 20020701 PRIORITY APPLN. INFO.: US 2002-393491P L29 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2005 ACS on STN ACCESSION NUMBER: 2004:856929 CAPLUS DOCUMENT NUMBER: 141:348831 TITLE: Antibodies specific to epitopes involving cell rolling, metastasis and inflammation for treatment of tumor, restenosis, thrombosis, autoimmune disease and inflammation INVENTOR(S): Lazarovits, Janette; Nimrod, Abraham; Hoch, Mar-Chaim Hagit; Levanon, Avigdor PATENT ASSIGNEE(S): Israel SOURCE: U.S. Pat. Appl. Publ., 22 pp. CODEN: USXXCO DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE A1 20030630 US 2004202665 20041014 US 2003-610843 PRIORITY APPLN. INFO.: US 2002-393453P P 20020701 => file pctfull COST IN U.S. DOLLARS SINCE FILE **TOTAL ENTRY** SESSION **FULL ESTIMATED COST** 23.21 96.74 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -3.65 13 DEC 2005 <20051213/UP> <200549/EVV> FILE COVERS 1978 TO DATE >>> IMAGES ARE AVAILABLE ONLINE AND FOR EMAIL-PRINTS <<<

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L33
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L36
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    ANSWER 1 OF 2
L40
ACCESSION NUMBER:
                       2001035956 PCTFULL ED 20020820
                   USE OF NSAIDs FOR THE TREATMENT OF PANCREATIC
TITLE (ENGLISH):
             ***CANCER***
TITLE (FRENCH):
                   UTILISATION DES AINS DANS LE TRAITEMENT DU
             ***CANCER*** DU PANCREAS
                  MARSHALL, Mark, Steven;
INVENTOR(S):
            SWEENEY, Christopher, J.;
            YIP-SCHNEIDER, Michelle, T.:
            CROWELL, Pamela, L.
PATENT ASSIGNEE(S):
                       ADVANCED RESEARCH AND TECHNOLOGY INSTITUTE
            MARSHÁLL, Mark, Steven;
            SWEENEY, Christopher, J.;
            YIP-SCHNEIDER, Michelle, T.;
            CROWELL, Pamela, L.
DOCUMENT TYPE:
                      Patent
PATENT INFORMATION:
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                           KIND
                                  DATE
            WO 2001035956
                              A1 20010525
DESIGNATED STATES
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            CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN
            IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK
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SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY

DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG APPLICATION INFO.: WO 2000-US31410 A 20001115 PRIORITY INFO .: US 1999-60/165,543 19991115 ANSWER 2 OF 2 PCTFULL COPYRIGHT 2005 Univentio on STN ACCESSION NUMBER: 1999049859 PCTFULL ED 20020515 TITLE (ENGLISH): DFMO AND SULINDAC COMBINATION IN ***CANCER*** CHEMOPREVENTION TITLE (FRENCH): COMBINAISON DE DFMO ET DE SULINDAC DANS LA CHIMIOPREVENTION DU ***CANCER*** INVENTOR(S): GERNER, Eugene, W.; MEYSKENS, Frank, L., Jr. PATENT ASSIGNEE(S): THE ARIZONA BOARD OF REGENTS on behalf of THE UNIVERSITY OF ARIZONA: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA; GERNER, Eugene, W.; MEYSKENS, Frank, L., Jr. LANGUAGE OF PUBL.: English DOCUMENT TYPE: **Patent** PATENT INFORMATION: NUMBER KIND DATE WO 9949859 A1 19991007 **DESIGNATED STATES** W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG APPLICATION INFO.: WO 1999-US6693 A 19990326 PRIORITY INFO .: US 1998-60/079,850 19980328 => d kwic 1 ANSWER 1 OF 2 PCTFULL COPYRIGHT 2005 Univentio on STN TIEN USE OF NSAIDS FOR THE TREATMENT OF PANCREATIC ***CANCER*** TIFR UTILISATION DES AINS DANS LE TRAITEMENT DU ***CANCER*** DU PAI ABEN The invention provides a method comprising the use of non-steroidal ***sulindac*** or its antiinflammatory drugs (NSAIDs), particularly analogs to treat pancreatic ***cancer*** DETD USE OF NSAIDs FOR THE TREATMENT OF PANCREATIC ***CANCER*** Backgrround of the Invention ***Cancer*** of the pancreas ranks 'ust behind lung ***cancer*** , colon ***cancer*** , and breast ***cancer*** as the most common cause of death by ***cancer*** (1). It is more common among men, and men between the ages of 60 and 70 are most at risk. The cause of pancreatic ***cancer*** is unknown. which are not fully understood, usually is 1 0 significant. The average loss is about 25 pounds. Jaundice occurs if ***cancer*** blocks the common bile duct. The survival rate with pancreatic ***cancer*** is poor. By the time the malignant ***tumor*** is identified, it often has spread (metastasized) to other parts of the body. The median survival is little more than six. 5 Often the ***tumor*** cannot be removed by surgery, either because it has invaded vital structures that cannot be removed or because it has spread distant sites. Chemotherapy and radiation therapy can be used on the ***tumor*** ,

although these treatments often are not beneficial. Easton, PA (18th ed., 1990) at pages 1115 There is a large amount of literature on the effect of NSAIDs on ***cancer*** particularly colon ***cancer*** . For example, see H. A. Weiss et al., Scand J. in vitro, but that indomethacin, ketoralac and NS-398, did not. Sulindac has been investigated in combination therapy for the treatment of colon ***cancer*** . See, H. M. Verheul et al., Brit- J. Cance , 79, 114 (1999); F. A. Sinicrope et al., Clin. ***Cancer*** Res-, 2, 37 (1996); and M. Mooghen et al., J. Pathol., LI]6, 394 (1988). C. P. Duffy et al., Eur. J. ***Cancer***, 34, 1250 (1998), reported that the cytotoxicity of certain chemotherapeutic drugs was enhanced when they combined with certain non-steroidal anti-inflammatory agents. The effects observed against human lung ***cancer*** cells and human leukemia cells were highly specific and not predictable; i.e., some combinations of NSAID and agent were effective and some. . . a PCT application (WO98/18490) on October 24, 1997, directed to a combination of a substrate for MRP, which can be an anti-***cancer*** drug, and a NSAID that increases the potency of the anti- ***cancer*** drug. Therefore, a continuing need exists for methods to control ***cancers***, and to increase the potency of anti- ***cancer*** drugs with relatively non-toxic agents. Summ= of the Invention In one aspect, the present invention provides a therapeutic method to pancreatic ***cancer***, comprising administering to a mammal afflicted with pancreatic ***cancer*** an amount of a NSAID, preferably sulindac ((Z) fluoro methyl-I-[[4-(methylsulfinyl)phenyl] methylene]-IH-Indene acetic acid), or an analocr thereof, preferably one that is a COX-2 inhibitor, effective to inhibit the viability of pancreatic ***cancer*** cells of said mammal. The present invention also provides a method of increasing the susceptibility of human pancreatic ***cancer*** cells to a chemotherapeutic agent comprising contacting

the viability of pancreatic ***cancer*** cells of said mammal. The present invention also provides a method of increasing the susceptibility of human pancreatic ***cancer*** cells to a chemotherapeutic agent comprising contactir the cells with an effective sensitizing amount of a NSAID, preferably sulindac, or said analog thereof Thus, the invention provides a therapeutic method for the treatment of a human or other mammal afflicted with pancreatic ***cancer***, wherein an effective amount of an NSAID, preferably sulindac or said analog thereof is administered to a subject afflicted with pancreatic ***cancer*** and undergoing treatment with a 5 chemotherapeutic (antineoplastic) agent.

Preferably, sulindac is administered in conjunction with one or more chemotherapeutic agents effective against pancreatic ***cancer*** such as gemcitabine or 5-FU.

A method of evaluating the ability of sulindac to sensitize pancreatic

cancer cells to a chemotherapeutic agent is also provided. The
assay method
comprises: (a) isolating a first portion of pancreatic

cancer

cells ftom a human

cancer patient; (b) measuring their viability; (c)
administering sulindac, or said
analog thereof, to said patient; (d) isolating a second portion of
pancreatic

cancer

cells from said patient; (e) measuring the viability of the second
portion of
pancreatic

cancer

cells; and (f) comparing the viability
measured in step (e) with
the viability measured in step (b); wherein reduced viability in. . .

(b) and (e) are carried out in the presence of the chemotherapeutic agent, as will be the case when the pancreatic ***cancer*** cells are derived from the blood of a mammal afflicted with pancreatic ***cancer***.

Thus, a ***cancer*** patient about to undergo, or undergoing, treatment for pancreatic ***cancer*** can be rapidly evaluated to see if he/she will benefit from concurrent chemotherapy and administration of sulindac or an analog thereof.

Description of the FiVures
Figure 1. Photocopy of a representative immunoblot of pancreatic
adenocarcinomas and matched normal tissue. Lysates were prepared from
tumor
(T) specimens obtained from six patients, three with matched normal (N)
tissue
(sample numbers correspond to those listed in Table 1). Lysates. . .

expresses neither COX- I or COX
Figure 2. Percent COX-2 expression in patient samples. Values of %
COX-2 expression for all ***tumor*** samples, shown by solid
circles, and non-nal

tissue, shown by open circles, from Table I are plotted. Values for mean, median

and range are indicated. The % COX-2 expression for the matched pancreatic

tumor /normal tissue sets is shown in the inset (n = I 1). Lines are drawn between

the corresponding ***tumor*** values, shown by solid circles, and non-nal values,

shown by the open circles. The difference in COX-2 expression between ***tumor***

and non-nal specimens was determined to be statistically significant (P = 0.004).

Figure 3. COX-2 expression in pancreatic ***tumor*** cell lines. A) COX-2

expression in human pancreatic cell lines detected by immunoblot analysis. The K-ras mutation status of each of the. . .

Figure 4. Effect of COX inhibitors on the growth of pancreatic

tumor
cell lines. The cell lines BxPC-3, shown by the black bars, and PaCa-2, shown
by the hatched bars, were plated in the. . .

Figure 5. Prostaglandin E2 production. A) PGE2 levels in pancreatic ***tumor*** cell lines. Following incubation of exponentially growing cells with

15 gM arachidonic acid in serum-free media for one hour, PGE2 levels. .

Figure 6 is a graph depicting the effect of a combination of sulindac and gemcitabine on the growth of pancreatic ***tumor*** cell line BxPC.

Figure 7 is a graph depicting the effect of a combination of sulindac gemcitabine on the growth of pancreatic ***tumor*** cell line PaCa Detailed Description of the Invention Difficulty in achieving early diagnosis as well as the aggressive nature pancreatic ***cancer*** contribute to the low survival rate of patients with pancreatic ***cancer*** . Since few options exist for the treatment of pancreatic ***cancer***, it is important to identify potential targets for drug therapy. In an effort to gain more insight into pancreatic tumonigenesis] pancreatic ***tumors*** have been analyzed at the molecular level to detect genetic lesions. Activating mutations within the Kras gene have been detected in up to 90% of pancreatic carcinomas, suggesting that activation of the Ras pathway is important in the development of pancreatic ***cancer*** (2). Experimental chemotherapeutic strategies for pancreatic ***cancer*** patients currently include drugs which target the Ras signal transduction pathway.

For example, epidemiological studies have shown that prolonged use of aspirin or other nonsteroidal anti-inflammatory drugs (NSAIDs) can reduce the risk of colon ***cancer*** by 40-50% (3). NSAIDs also inhibit chemically induced colon carcinomas in animal model systems (4). Since NSAIDs are known to inhibit cyclooxygenase. . . esters, and growth factors (5, 6). COX-2 expression has recently been shown to be elevated in several different types of human ***cancer*** suggesting that the presence of COX-2 correlates with ***cancer*** development (7-1 1). Additional studies which directly link COX-2 to carcinogenesis include observations that human colon ***cancer*** cells expressing COX-2 acquire increased invasiveriess (12) and that COX-2 expressed in ***intestinal*** epithelial cells inhibits apoptosis (13), COX-2 expression in colon ***cancer*** cells has also been found to promote angiogenesis of co-cultured endothelial cells by stimulating the production of angiogenic factors (14). Furthermore, direct genetic evidence linking COX-2 to ***colorectal*** ***tumorigenesis*** was provided by a mouse model for human familial adenomatous ***polyposis*** (FA-P), an inherited condition leading to ***colorectal*** ***cancer*** ; in this system, COX-2 gene knockouts and a specific COX-2 inhibitor were found to reduce the number of ***intestinal*** ***polyps*** formed (1 5).

The presence of oncogenic Ras has been associated with the induction of COX-2 expression in H-ras-transformed rat ***intestinal*** and mammary epithelial cellsaswellasinnon-smallcelllungcancercelllines(16-18). Toour knowledge, the association between oncogenic Ras and COX-2 expression has not ben explored in vivo. The high frequency of activating mutations within the K-ras gene in pancreatic ***tumors*** should enable us to investigate the relationship between oncogenic K-ras and COX-2 expression in vivo. In the present study,

we evaluated COX-2 protein levels in primary human pancreatic adenocarcinomas. We further examined whether COX-2 expression correlated with K-ras mutation status in pancreatic ***tumors*** as well as in pancreatic ***cancer*** cell lines. In light of our data demonstrating elevated levels of COX-2 protein in primary pancreatic ***tumors*** and cell lines, we tested the effect of the COX inhibitors sulindac, indomethacin and NS-398 on cell growth and prostaglandin E2 production in human pancreatic ***tumor*** cell lines.

Cyclooxygenase-2 (COX-2) expression is upregulated in several types of ***cancers*** and has also been directly linked to human carcinogenesis. To 1 5 investigate the role of COX-2 in pancreatic ***cancer***, we evaluated COX-2 protein expression in primary human pancreatic adenocarcinomas (n = 23) and matched normal adjacent tissue (n = I 1) by immunoblot analysis. COX-2 expression was found to be significantly elevated in the pancreatic ***tumor*** specimens compared to normal pancreatic tissue. To examine whether the elevated levels of COX-2 protein observed in pancreatic ***tumors*** correlated with the presence of oncogenic K-ras, we determined the K-ras mutation status in a subset of the ***tumors*** and corresponding non-nal tissues. The presence of oncogenic K-ras did not correlate with the level of COX-2 protein expressed in the pancreatic adenocarcinornas analyzed. These observations were also confirmed in a panel . of human pancreatic ***tumor*** cell lines. Furthermore, in the pancreatic ***tumor*** cell line expressing the highest level of COX-2 (BxPC-3), COX-2 expression was demonstrated to be independent of Erkl/2 Map kinase activation. The. . lack of correlation between COX-2 and oncogenic K-ras expression suggests that Ras activation may not be sufficient to inducing COX-2 expression in pancreatic ***tumor*** cells and that the aberrant activation of signaling pathways other than Ras may be required for up-regulating COX-2 expression. We also. . . report that the COX inhibitors sulindac, indomethacin, and NS-398 inhibited cell growth in both COX positive (BxPC-3) and COX negative (PaCa-2) pancreatic ***tumor*** cell lines. However, suppression of cell growth by indomethacin and NS-398 was sigm icantly greater in the BxPC-3 cell line compared to. . . that COX-2 may play an important role in pancreatic tumongenesis and therefore be a promising chemotherapeutic target for the treatment of pancreatic ***cancer*** .

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Other NSAIDs, including indomethacin and NS-398 also the growth of pancreatic ***tumor*** cell lines, as discussed hereinbelow, and can also be used in the present method, alone, or preferably in combination with sulindac.

or infusion in dosages of about 500-4000 Mg/M2 /week for up to 7 weeks/cycle for treatment of localized or metastatic pancreatic ***cancer*** (adenocarcinoma of the pancreas). It can also be administered in conjunction with other anti- ***cancer*** agents, such as 5-FU. See, PDR (53rd ed., 1999) at pages 1578

The effect of sulindac or NS-398 alone and in combination with gemcitabine on the growth of pancreatic ***tumor*** cells BxPC-3 and PaCa-2 was investigated. Treatment with the drug combinations inhibited the growth of both cell lines to a greater extent. . . NF-KB DNA binding activity was inhibited by parthenolide treatment. These results suggest that anti-inflammatory drugs may enhance the effectiveness of gemcitabine against pancreatic ***tumors*** . of a prophylactic or therapeutic dose of sulindac, an analog thereof or a combination thereof, in the acute or chronic management of ***cancer***, i.e., pancreatic caner, will vary with the stage of the ***cancer***, such as the solid ***tumor*** to be treated, the chemotherapeutic agent(s) or other anti- ***cancer*** therapy used, and the route of administration. The dose, and perhaps the frequency, will also vary according to the age, body. . . 5 chemotherapy regimen. The sulindac, in some cases, may be combined with the same carrier or vehicle used to deliver the anti- ***cancer*** chemotherapeutic agent. sterile powders comprising the active ingredient which are adapted for the extemporaneous preparation of sterile injectable or infusible solutions or dispersions, optionally **encapsulated*** in ***liposomes*** . In all cases, the ultimate dosage form must be sterile, fluid and stable under the conditions of manufacture and storage. The. . . like), vegetable oils, non-toxic glyceryl esters, and suitable mixtures thereof The proper fluidity can be maintained, for example, by formation of ***liposomes***, by the maintenance of the required particle size in the case of dispersions or by the use of surfactants. The prevention. . . were obtained from the Indiana University Tissue Procurement Laboratory and the Cooperative Human **Tissue** Network (CHTN) which is funded by the National ***Cancer*** Institute. A total of 23 primary human pancreatic ***cancer*** specimens were analvzed in this study. within I hour of surgical removal and subsequently stored at -80'C. Paraffin sections were prepared from a subset of the specimens. All ***tumor*** specimens used in this study were examined by a pathologist and classified as primary pancreatic adenocarcinornas. 5. Statistical Analysis. The presence of statistically significant elevation of COX-2 protein between ***cancer*** specimens and corresponding normal adjacent tissues was determined by the nonparametric signed rank test. A two-way analysis of variance (ANOVA) was used. . . 6. Cell Lines. The human pancreatic ***tumor*** cell lines (AsPC-1, BxPC-3. Capan-1, Capan-2, HPA-F-11, Hs766T, PaCa-2 and PANC-1) were obtained

the American Type Culture Collection (ATCC, Rockville, MD). . .

Undetectable levels of COX-2 protein were observed in each of the normal specimens. In contrast, COX-2 protein expression in the

pancreatic 5 ***tumor*** tissues ranged from undetectable (sample #2 1) to slight/moderate (samples #12, 14, 20) to high levels (samples #9, 22). COX-1 protein was observed in both pancreatic ***tumor*** and normal tissues, although the level of expression was variable and not consistently elevated in the ***tumor*** specimens (Figure 1). Similar levels of p2l' and actin expression were found in both the ***tumor*** and corresponding normal tissues (Figure 1). narrower range (0 3%) of COX-2 expression in the normal tissues. Both the mean and median COX-2 expression were higher in the ***tumor*** samples, suggesting that COX-2 expression is elevated in pancreatic adenocarcinomas compared to normal tissue. The difference COX-2 expression between the pancreatic ***tumor*** and corresponding normal tissue was determined to be statistically significant (P = 0.004) (Figure 2, inset). less than 5% respectively, which corresponds closely with visual detection in the immunoblots. According these criteria, 6 out of 11 (55%) ***tumor*** samples in the matched tissue sets were COX-2 positive. Similarly, 13 out of the 23 (56%) total ***tumor*** specimens analyzed were COX-2 positive; in contrast, all the normal tissue samples I 1) were COX-2 negative. h-nmunohistochemical staining of the pancreatic ***tumor*** specimens demonstrated that COX-2 expression was localized to the carcinoma cells was not detectable in the stromal compartment of the ***tumors*** (Figure 3). Example 2 COX-2 expression and K-ras mutation in pancreatic ***tumors*** and cell lines To determine if COX-2 expression levels correlated with the K-ras mutation status of the ***tumors*** , genomic DNA was isolated from a subset of the tissue specimens and screened for the presence of K-ras mutations at codon. . . the normal tissues analyzed were wild-type at codon 12 (GGT = Gly) and codon (GGC = Gly). Of the 13 pancreatic ***cancer*** specimens analyzed, one specimen had a mutation at codon 13 whereas IO samples were mutated at codon 12, corresponding to a K-ras. . . extent of COX-2 protein expression. For example, some samples expressed high levels of COX-2 protein and possessed a mutation in K-ras (i.e., ***tumor*** samples #9, 16 and 22); however. other samples which had mutated K-ras expressed little or no COX-2 protein ***tumor*** samples #3, 17, 18, 19, and 21). (i.e., with known K-ras mutation status (25, 26). Both the frequency and variability in the quantity of COX-2 expressed in the pancreatic ***tumor*** cell lines reflected our findings in the primary pancreatic adenocarcinomas. Of the eight human pancreatic ***tumor*** cell lines analyzed, only three of the

expressing oncogenic K-ras exhibited detectable levels of COX-2 protein

seven cell lines

(Capan-1, Capan-2 and. . . (Figure 4B). Taken together, our results suggest that activation of the Ras pathway is not sufficient for mediating COX-2 uprecrulation in pancreatic ***tumor*** cells. We also compared the level of COX-2 expression in three hamster pancreatic cell lines, The D27/K-ras and B 12/13 transformed cell. . . parental line (Figure 4Q. These results confirm our conclusion that Ras activation alone is not sufficient for upregulating COX-2 expression in pancreatic ***cancer*** cells and suggest that additional events which occur following exposure to chemical carcinogens may be required.

To examine whether COX-2 expression could be induced in the human pancreatic ***cancer*** cell lines, four cell lines were serum-starved and subsequently treated with IO% FCS for various time periods (F1 crure 4D). In. . .

is activated (unpublished observations), again demonstrating that Erk 1/2 activation is not sufficient for inducing COX-2 expression in the COX negative pancreatic ***tumor*** cells. We observed similar results upon treating the cell lines with the ***tumor*** promoter, PMA (unpublished observations).

Example 3
Treatment of pancreatic ***tumor*** cell lines with cyclooxygenase inhibitors
The COX positive human pancreatic ***tumor*** cell lines, BxPC-3, and the
COX negative cell line, PaCa-2, were treated with the COX inhibitors sulindac, indomethacin, or NS Sulindac and. . . was measured after three days of treatment (Figure 5). All three inhibitors were found to suppress cell growth in both pancreatic ***tumor*** cell lines in a dose-dependent manner. However, indomethacin and NS-398 were found to inhibit cell growth to a greater extent in the. . .

To evaluate the functional activity of COX-2 in the human pancreatic

tumor cell lines, prostaglandin E2 (PGE,) production was
measured by
enzymeimmunoassay (Figure 6A). PGE2 production was elevated in the BxPC3, Capan-1, Capan-2. . .

These data demonstrate that the combination of sulindac and gemcitabine is more effective than either compound alone in pancreatic ***tumor*** cells.

as well as inflammatory agents (5, 6, 29). Recent studies have shown that COX-2 expression is upregulated in a variety of human ***cancers***, including colon, lung, gastric, pancreatic and ***esophageal*** (7-1 1). In the present study, we report that elevated levels of COX-2 protein are expressed in human pancreatic ***tumors*** compared to barely detectable levels in the matched non-nal pancreatic tissue, suggesting that increased expression of COX-2 protein correlates with pancreatic tunionigenesis. Our results confirm a recent report demonstrating upregulation of COX-2 RNA protein in pancreatic ***tumors*** and localization of COX-2 in malignant epithelial cells (I 1). An earlier study demonstrated that the expression of group phospholipase A2,. . . phospholipids, was higher in pancreatic ductal adenocarcinomas compared to normal pancreatic tissue (30). In addition, the development of N-

nitrosobis(2-oxopropyl)amine (BOP)-initiated pancreatic ***tumors*** in hamsters was inhibited by the administration of two prostaglandin synthesis inhibitors. phenylbutazone and indomethacin (3 1). Together with our observations in. . . that increased prostaglandin production due to the increased expression of COX-2 may be an important event in the multi-step progression towards pancreatic ***tumor*** formation. as well as prostaglandin E2 were detected in Ras-transformed mammary epithelial cells (C57/MG) cells (I 7). In human non-small cell lung ***cancer*** (NSCLQ cell lines expressing oncogenic K-Ras, increased PGE2 production 5 mediated by constitutively high expression of cytosolic, phospholipase COX-2 compared. . . the expression of detectable levels of COX-2 protein. A possible explanation for the lack of COX-2 expression in a subset of the ***tumors*** with oncogenic Ras is that Erkl/2 activity may be downregulated in pancreatic carcinomas (26). Moreover, even in the two pancreatic ***tumor*** samples which did show elevated levels of activated Erkl/2 (samples #4 and 21, data not shown), only low levels of COX-2. . . in the present study, suggesting that Erkl/2 activation alone is not sufficient for inducing COX-2 expression. These findings suggest that within the ***tumor*** environment, the presence of oncogenic K-ras does not directly result in increased COX-2 expression in pancreatic ***cancer*** . Similar conclusions were also reached upon analysis of pancreatic

cancer cell lines, which were examined since they represent a homogenous population of cells as opposed to primary ***tumor*** tissue which is heterogenous. Despite activating K-ras mutations in seven out of the eight lines, only three of the lines with mutated. . . of COX-2 expression. Activation of other signaling pathways in addition to Ras may cooperate to determine the extent of COX-2 expression in ***cancer*** cells. Such pathways may include the p38 mitogen-activated protein kinase which has reported to regulate the induction of COX-2 in lipopolysaccharidetreated. . . the cell type as well as the stimulus. Further experiments will be required to delineate which signaling pathways are function in pancreatic ***tumor*** cells.

expressing cell lines. These data suggest that the COX inhibitors exert their inhibitory effects by both COX/PGE,-dependent and -independent pathways in pancreatic ***tumor*** cell lines.

The detection of elevated levels of COX-2 in a variety of human ***cancers***
combined with the chemopreventative effect of NSAIDs in colon ***cancer***
I 0 demonstrate that COX-2 is an important participant in carcinogenesis. The reported biological consequences of COX-2 upregulation include inhibition of apoptosis (13), increased metastatic potential (12) and promotion of anglogenesis (14). These events may contribute to cell transformation and

tumor progression.

COX-2 expression was noticeably elevated in 55% of the patient pancreatic

tumor samples analyzed, identifying COX-2 as a new target for chemotherapy.

These results demonstratincy the ability of COX inhibitors to inhibit pancreatic

tumor cell growth and PGE, production in vitro indicate that NSAIDs may be effective in the treatment of pancreatic ***cancer*** patients, for whom few treatment options currently exist. COX-2 expression is also useful as a prognostic or diagnostic tool.

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TABLE 1. Analysis of Patient Samples
Tissue Sample' Tissue Type % COX-2 b % ***Cancer*** 'K-raE I pancreatic adenocarcinorna 7.0 10 WT
2 pancreatic adenocarcinorna 2.0 95
3 pancreatic adenocarcinoma 0.2 15 GGC to CG,
4 pancreatic adenocarcinorna 3.6. . . N nornial 0.1 12 pancreatic adenocarcinorna I 15
14 pancreatic adenocarcinorria 31 ND
Tissue Sample a Tissue Type % COX-2 b % ***Cancer*** 'K-ras
1 5 pancreatic adenocarcinonia 7.8 25 GGT to
15N normal 4.3 - I
1 6 pancreatic adenocarcinoma 66 35 GGT to
16N non-nal. . .

c The percent ***cancer*** was determined by visualization following hematoxylin/eosin staining of slides prepared from paraffin sections.

- CLMEN I. A method of reducing the viability of pancreatic ***cancer*** cells comprising contacting the ***cancer*** cells with an effective amount of an NSAID.
 - 2 A method of increasing the susceptibility of mammalian pancreatic ***cancer*** cells to a chemotherapeutic agent comprising contacting the cells with an effective sensitizing amount of an NSAID.

4 The method of claim I or 2 wherein the mammalian ***cancer*** cells are human ***cancer*** cells.

5 The method of claim 3 wherein the sulindac or the analog thereof is administered to a human ***cancer*** patient.

6 The method of claim 5 wherein the ***cancer*** patient is undergoing

treatment with a chemotherapeutic a2ent. 9 A method of evaluating the ability of sulindac or an analog thereof that is a COX-2 inhibitor to sensitize pancreatic ***cancer*** cells to a chemotherapeutic agent comprising: (a) isolating a first portion of pancreatic ***cancer*** cells from a human pancreatic ***cancer*** patient; (b) measuring their viability; (c) administering sulindac or the analog thereof to said patient; (d) isolating a second portion of pancreatic ***cancer*** cells from said patient; (e) measuring the viability of the second portion of pancreatic ***cancer** cells; and (f) comparing the viability measured in step (e) with the viability measured in step (b); wherein reduced viability in step (e) indicates. . . TNT COX-2 mm 40- cwllw C OX- 1 p2i ras Actin]1]] VW Iwo ow C/ (]-) /8 100 -90 - lo(9CF 80-9 7CF 70-60-40 **3Y** to 50а cw C*4 26 40-1 Cy ***TUMOR*** NORMAL 30 -20-10-8 ***TUMOR*** NORMAL y1wMian = 5.2% median = 02% nwan = 15.2 +/- 24.9% mcan 0.83 +/- 1.3% v2mge = 0 - 93% map 0. . . Sulindac IndometIL NS-398 % inhibition: 0 07 90 F957 98 759 86 /8 Effect of Sulindac + Gemcitabine on the growth of the pancreatic ***tumor*** cell line, BxPC-3 (day 3) 125 -100 I Gem alone 75 -1,100+ e 50 - T em sul, 500 + Gem 0 5 10 15 20. . . and Technology Institute, Inc. Marshall, Mark Steven

10<120> Use of NSAIDs for the treatment of pancreatic ***cancer***

Sweeney, Christopher J. Yip-Schneider, Michele T.

Crowell, Pamela L.

<130> 740.018WO1 <150> US 60/165,543 15<151> 1999 15 <160> 2 <170> FastSEQ for Windows Version 4.0 <210> 1 <211> 20 <212> DNA <213> Homo sapiens <400> 1 atgactgaat ataaacttgt 20 <210> 2 30<211>. . . search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ,, CHEM ABS Data, MEDLINE, EMBASE, BIOSIS, ***CANCERLIT*** C. DOCUMENTS CONSIDERED TO BE RELEVANT Category Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. Pax SWEENEY J. ET AL.: INHIBITION OF CELL 1-11 ***TUMOR*** CELLS BY GROWTH IN PANCREATIC ANTI-INFLAMMATORA DRUGS11 PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR ***CANCER*** RESEARCH. vol. 41, March 2000 (2000-03),, page 527 XPOO2164391 USA ABSTRACT #3358 abstract Further documents are listed in the continuation of box C. Patent family members. . . passages Relevant to claim NO. PqX MARSHALL M.S. ET AL.: SUPPRESSION OF 1-11 PANCREATIC DUCTAL ADENOCARCINOMA GROWTH BY SULINDACH PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR ***CANCER*** RESEARCH, vol. 41, March 2000 (2000-03), page 526 XPO02164392 USA ABSTRACT #3349 abstract P9X T.YIP-SCHNEIDER M. ET AL.: COX-2 1-11 EXPRESSION IN HAMAN PANCREATIC ADENOCARCINOMAS11 CARCINOGENESIS, vol. 21, no. 2,. . . XPOO0984815 the whole document X MOLINA M, ET AL.: INCREASED COX-2 1-11 EXPRESSION IN HUMAN PANCREATIC CARCINOMAS AND CELL LINES: GROWTH INHIBITION NY NONSTEROIDAL ANTI-INFLAMMATORY DRUGS11 ***CANCER*** RESEARCH, vol. 59, no. 17, September 1999 (1999-09), pages 4356-4362, XPOO0984712 the whole document X WO 99 49859 A (THE ARIZONA BOARD OF 1-698 REGENTS). . .

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MASKIEWICZ, Richard, 88 Saunders Lane, Richfield, CT 06877, US [US, US], for US only; SHAMEEM, Mohammed, 4 Surim Court, Nanuet, NY 10954, US [US, US], for US only AGENT: DAVIDSON, Clifford, M.\$, Davidson, Davidson & Kappel, LLC, 485 Seventh Avenue, 14th Floor, New York, NY 10018\$, US LANGUAGE OF FILING: English LANGUAGE OF PUBL.: **English** DOCUMENT TYPE: Patent PATENT INFORMATION: NUMBER KIND DATE WO 2005081825 A2 20050909 DESIGNATED STATES W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW RW (ARIPO): BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW RW (EAPO): AM AZ BY KG KZ MD RU TJ TM RW (EPO): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU MC NL PL PT RO SE SI SK TR RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG APPLICATION INFO.: WO 2005-US4741 A 20050215 PRIORITY INFO .: US 2004-60/547,196 20040223 PCTFULL COPYRIGHT 2005 Univentio on STN 18 ANSWER 2 OF 3 **ACCESSION NUMBER:** 2004052339 PCTFULL ED 20040630 EW 200426 TITLE (ENGLISH): PH TRIGGERED TARGETED CONTROLLED RELEASE SYST TITLE (FRENCH): SYSTEMES DE LIBERATION CONTROLEE CIBLEE A DECLE FONCTION DU PH INVENTOR(S): SHEFER, Adi, 14 Jason Drive, East Brunswick, NJ 08816, US SHEFER, Samuel, David, 14 Jason Drive, East Brunswick, NJ 08816, US PATENT ASSIGNEE(S): SALVONA LLC, 65 Stults Road, Dayton, NJ 08810, US [US US] AGENT: DUNN, McKay, Diane\$, Mathews, Collins, Shepherd & McKay, P.A., 100 Thanet Circle, Suite 306, Priceton, NJ 08540\$, US LANGUAGE OF FILING: **English** LANGUAGE OF PUBL.: **English DOCUMENT TYPE:** Patent PATENT INFORMATION: NUMBER KIND DATE A1 20040624 WO 2004052339 **DESIGNATED STATES** W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW RW (ARIPO): RW (EAPO): AM AZ BY KG KZ MD RU TJ TM RW (EPO): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE SI SK TR BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG RW (OAPI): WO 2003-US26142 APPLICATION INFO.: A 20030821 PRIORITY INFO .: US 2002-10/315,801 20021209 ANSWER 3 OF 3 L8 PCTFULL COPYRIGHT 2005 Univentio on STN ACCESSION NUMBER: 1996040090 PCTFULL ED 20020514 TITLE (ENGLISH): METHOD FOR REDUCING OR PREVENTING POST-SURGIC ADHESION FORMATION USING 5-LIPOXYGENASE INHIBITORS TITLE (FRENCH): PROCEDE POUR LA REDUCTION OU LA PREVENTION DE FORMATION D'ADHERENCES POST-CHIRURGICALES A L'AIDE D'INHIBITEURS DE 5-LIPOXYDASE RODGERS, Kathleen, Elizabeth; INVENTOR(S): diZEREGA, Gere, Stodder UNIVERSITY OF SOUTHERN CALIFORNIA PATENT ASSIGNEE(S):

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      1026 S L2 OR L3
L5
      6164 S POLYANHYDRIDE
      2826 S SULINDAC
L6
L7
        16 S L6 AND L4
L8
        3 S L7 AND L5
=> s I7 and polymer
    158886 POLYMER
    122941 POLYMERS
    189307 POLYMER
         (POLYMER OR POLYMERS)
L9
       16 L7 AND POLYMER
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    61948 TUMOR?
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      90719 CANCER? OR TUMOR? OR CANCER?
L11
=> s | 11 and | 12
L12 NOT FOUND
The L-number entered could not be found. To see the definition
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).
=> s | 11 and | 10
L12
        12 L11 AND L10
=> s polymeric
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      178 POLYMERICS
      89307 POLYMERIC
         (POLYMERIC OR POLYMERICS)
=> s 113 or 19
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L14
=> s polymer
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L15
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L18
ACCESSION NUMBER:
                     2001072281 PCTFULL ED 20020822
                   ***MICROSPHERES*** FOR ACTIVE EMBOLIZATION
TITLE (ENGLISH):
                   ***MICROSPHERES*** PERMETTANT UNE EMBOLISATIC
TITLE (FRENCH):
           ACTIVE
                 VOGEL, Jean-Marie;
INVENTOR(S):
           BOSCHETTI, Egisto
PATENT ASSIGNEE(S):
                     BIOSPHERE MEDICAL INC.;
           VOGEL, Jean-Marie;
           BOSCHETTI, Egisto
DOCUMENT TYPE:
                    Patent
PATENT INFORMATION:
           NUMBER
                         KIND DATE
           WO 2001072281 A2 20011004
DESIGNATED STATES
   W:
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           CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL
           IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG
           MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ
           TM TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW MZ
           SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH
           CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR BF BJ
           CF CG CI CM GA GN GW ML MR NE SN TD TG
APPLICATION INFO.:
                                      A 20010323
                    WO 2001-US9619
PRIORITY INFO .:
                  US 2000-60/191.899
                                      20000324
    ANSWER 2 OF 11 PCTFULL COPYRIGHT 2005 Univentio on STN
                     2001072280 PCTFULL ED 20020822
ACCESSION NUMBER:
                   ***MICROSPHERES*** FOR GENE THERAPY
TITLE (ENGLISH):
                  COMPOSITIONS ET METHODES POUR THERAPIE GENIQU
TITLE (FRENCH):
INVENTOR(S):
                 VOGEL, Jean-Marie;
           BOSCHETTI, Egisto
PATENT ASSIGNEE(S): BIOSPHERE MEDICAL INC.;
           VOGEL, Jean-Marie;
           BOSCHETTI, Egisto
DOCUMENT TYPE:
                    Patent
PATENT INFORMATION:
           NUMBER
                         KIND
                                DATE
           WO 2001072280 A2 20011004
DESIGNATED STATES
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APPLICATION INFO.:
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PRIORITY INFO .:
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                                      20000324
    ANSWER 3 OF 11 PCTFULL COPYRIGHT 2005 Univentio on STN
L18
ACCESSION NUMBER:
                      2001070291 PCTFULL ED 20020822
TITLE (ENGLISH): INJECTABLE ***MICROSPHERES*** FOR DERMAL
           AUGMENTATION AND TISSUE BULKING
                   ***MICROSPHERES*** INJECTABLES DESTINEES A
TITLE (FRENCH):
           L'AUGMENTATION DERMIQUE ET AU GONFLEMENT TISSULAIRE
INVENTOR(S):
                 VOGEL, Jean-Marie;
           THOMAS, Richard;
```

BOSCHETTI, Egisto

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW GH GM KE LS MW MZ SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

APPLICATION INFO.: WO 2001-US8529 A 20010315

PRIORITY INFO.: US 2000-09/528,991 20000320

L18 ANSWER 4 OF 11 PCTFULL COPYRIGHT 2005 Univentio on STN

ACCESSION NUMBER: 2001070289 PCTFULL ED 20020822

TITLE (ENGLISH): INJECTABLE AND SWELLABLE ***MICROSPHERES*** FC
TISSUE BULKING

TITLE (FRENCH): ***MICROSPHERES*** INJECTABLES, SUSCEPTIBLES DI FOISONNEMENT, VISANT A FAIRE GONFLER UN TISSU

INVENTOR(S): VOGEL, Jean-Marie;

BOSCHETTI, Egisto

PATENT ASSIGNEE(S): BIOSPHERE MEDICAL, INC.

DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER KIND DATE

WO 2001070289 A2 20010927

DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW GH GM KE LS MW MZ SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR BF BJ CF

CG CI CM GA GN GW ML MR NE SN TD TG
APPLICATION INFO.: WO 2001-US8405 A 20010315

PRIORITY INFO.: US 2000-09/528,989 20000320

L18 ANSWER 5 OF 11 PCTFULL COPYRIGHT 2005 Univentio on STN ACCESSION NUMBER: 2000024378 PCTFULL ED 20020515
TITLE (ENGLISH): COMPOSITIONS OF ***MICROSPHERES*** FOR WOUND

TITLE (FRENCH): COMPOSITIONS A BASE DE ***MICROSPHERES*** DEST AU TRAITEMENT DES BLESSURES

INVENTOR(S): RITTER, Vladimir;

HEALING

RITTER, Marina

PATENT ASSIGNEE(S): POLYHEAL LTD;

RITTER, Vladimir; RITTER, Marina

LANGUAGE OF PUBL.: English DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER KIND DATE

WO 2000024378 A1 20000504

DESIGNATED STATES

W:

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

APPLICATION INFO.: WO 1998-IB1838 A 19981023

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L18 ANSWER 6 OF 11 PCTFULL COPYRIGHT 2005 Univentio on STN ACCESSION NUMBER: 1998051284 PCTFULL ED 20020514
TITLE (ENGLISH): NOVEL ACOUSTICALLY ACTIVE DRUG DELIVERY SYSTEM TITLE (FRENCH): NOUVEAUX SYSTEMES D'ADMINISTRATION DE MEDICAMI ACTIVES PAR UN PROCEDE ACOUSTIQUE INVENTOR(S): UNGER, Evan, C.

PATENT ASSIGNEE(S): IMARX PHARMACEUTICAL CORP.

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LANGUAGE OF PUBL.:
                     English
DOCUMENT TYPE:
                    Patent
PATENT INFORMATION:
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                         KIND
                                DATE
           WO 9851284 A1 19981119
DESIGNATED STATES
            AU BR CA CN JP KR NZ AT BE CH CY DE DK ES FI FR GB GR
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APPLICATION INFO.:
                   WO 1998-US9569
                                      A 19980512
                 US 1997-60/046,379 19970513
PRIORITY INFO.:
           US 1998-9/075,343
                             19980511
                     PCTFULL COPYRIGHT 2005 Univentio on STN
    ANSWER 7 OF 11
L18
                      1996040090 PCTFULL ED 20020514
ACCESSION NUMBER:
TITLE (ENGLISH): METHOD FOR REDUCING OR PREVENTING POST-SURGIC
           ADHESION FORMATION USING 5-LIPOXYGENASE INHIBITORS
TITLE (FRENCH):
                  PROCEDE POUR LA REDUCTION OU LA PREVENTION DE
           FORMATION D'ADHERENCES POST-CHIRURGICALES A L'AIDE
           D'INHIBITEURS DE 5-LIPOXYDASE
                 RODGERS, Kathleen, Elizabeth;
           diZEREGA, Gere, Stodder
PATENT ASSIGNEE(S): UNIVERSITY OF SOUTHERN CALIFORNIA
LANGUAGE OF PUBL.:
                     English
DOCUMENT TYPE:
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PATENT INFORMATION:
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           WO 9640090 A1 19961219
DESIGNATED STATES
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                   WO 1996-US8216
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ACCESSION NUMBER:
                     1995015118 PCTFULL ED 20020514
TITLE (ENGLISH): GAS ***MICROSPHERES*** FOR TOPICAL AND SUBCUT/
           APPLICATION
                   ***MICROSPHERES*** GAZEUSES POUR APPLICATION
TITLE (FRENCH):
           TOPIQUE ET SOUS-CUTANEE
                 UNGER, Evan, C.;
INVENTOR(S):
           MATSUNAGA, Terry;
           YELLOWHAIR, David
PATENT ASSIGNEE(S): UNGER, Evan, C.;
           MATSUNAGA, Terry;
           YELLOWHAIR, David
LANGUAGE OF PUBL.:
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    ANSWER 9 OF 11 PCTFULL COPYRIGHT 2005 Univentio on STN
L18
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ACCESSION NUMBER:
                 NOVEL THERAPEUTIC DELIVERY SYSTEMS
TITLE (ENGLISH):
                 NOUVEAU SYSTEME D'ADMINISTRATION DE PRODUITS
TITLE (FRENCH):
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INVENTOR(S):
                 UNGER, Evan, C.;
           FRITZ, Thomas, A.;
           MATSUNAGA, Terry;
RAMASWAMI, VaradaRajan;
           YELLOWHAIR, David;
           WU, Guanli
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PATENT ASSIGNEE(S):
                         UNGER, Evan, C.;
             FRITZ, Thomas, A.;
             MATSUNAGA, Terry;
RAMASWAMI, VaradaRajan;
             YELLOWHAIR, David;
WU, Guanli
LANGUAGE OF PUBL.:
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DOCUMENT TYPE:
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PATENT INFORMATION:
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DESIGNATED STATES
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APPLICATION INFO.:
                       WO 1994-US5633
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PRIORITY INFO .:
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             US 1993-8/160,232
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     ANSWER 10 OF 11 PCTFULL COPYRIGHT 2005 Univentio on STN
L18
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ACCESSION NUMBER:
TITLE (ENGLISH):
                     NOVEL THERAPEUTIC DRUG DELIVERY SYSTEMS
TITLE (FRENCH):
                     NOUVEAUX SYSTEMES D'ADMINISTRATION DE MEDICAMI
                    UNGER, Evan, C.;
INVENTOR(S):
             FRITZ, Thomas, A.;
             MATSUNAGA, Terry;
RAMASWAMI, VaradaRajan;
             YELLOWHAIR, David:
             WU, Guanli
PATENT ASSIGNEE(S):
                         UNGER, Evan, C.;
             FRITZ, Thomas, A.;
MATSUNAGA, Terry;
RAMASWAMI, VaradaRajan;
             YELLOWHAIR, David;
             WU, Guanli
LANGUAGE OF PUBL.:
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APPLICATION INFO.:
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PRIORITY INFO.:
                   US 1993-8/076,250
                                           19930611
=> d kwic 10
L18
     ANSWER 10 OF 11 PCTFULL COPYRIGHT 2005 Univentio on STN
ABEN Therapeutic drug delivery sytems comprising gas-filled
     ***microspheres*** comprising a therapeutic
    are described. Methods for employing such ***microspheres*** in
   therapeutic drug delivery applications are
   also provided. Drug delivery systems comprising gas-filled liposomes
   having encapsulated therein a
    drug are. . .
ABFR Systemes d'administration de medicaments au moyen de
     ***microspheres*** remplies d'un gaz a effet
   therapeutique, et methodes d'utilisation associees. Sont preconises des
    systemes d'administration a
   base de liposomes remplis. . .
DETD . . . deliver genetic material to
    5 living cells. These mechanisms include techniques such as
    calcium phosphate precipitation and electroporation, and
    carriers such as cationic ***polymers*** and aqueous-filled
   liposomes. These methods have all been relatively
   ineffective in vivo and only of limited use for cell culture
    transfection. None of. . .
```

such as ganglioside GM1 and GM2; glucolipids; sulfatides; glycosphingolipids; - 14 -

phosphatidic acid; palmitic acid; stearic acid; arachidonic acid; oleic acid; lipids bearing ***polymers*** such as polyethyleneglycol, chitin, hyaluronic acid or polyvinylpyrrolidone; lipids bearing sulfonated mono-, di-, 5 oligo- or polysaccharides; cholesterol, cholesterol sulfate and cholesterol hemisuccinate; tocopherol. . .

microsphere. Preferably, this non-cationic lipid is dipalmitoylphosphatidylcholine, - 15 -

dipalmitoylphosphatidylethanolamine or dioleoylphosphatidylethanolamine. In lieu of cationic lipids as described above, lipids bearing cationic ***polymers*** such as polylysine or polyarginine may also be used to construct the microspheres 5 and afford binding of a negatively charged therapeutic,...

to carbohydrates and their phosphorylated and sulfonated derivatives; polyethers, preferably with molecular weight ranges between 400 and 8000; di- and trihydroxy alkanes and their ***polymers***, preferably with molecular weight ranges between 800 and 8000. Emulsifying and/or solubilizing agents may also be used in conjunction with lipids or. . .

methicillin, nafcillin, oxacillin, penicillin G, penicillin V, ticarcillin rifampin and tetracycline; antiinflammatories such as diflunisal, ibuprofen, indomethacin, meclofenamate, mefenamic acid, naproxen, oxyphenbutazone, phenylbutazone, piroxicam, ***sulindac***, tolmetin, aspirin and salicylates; 20 antiprotozoans such as chloroquine, hydroxychloroquine, metronidazole, quinine and meglumine antimonate; antirheumatics such as penicillamine; narcotics such as paregoric; opiates. . .

DNA and analogs thereof, such as 20 phosphorothioate and phosphorodithioate oligodeoxynucleotides. Additionally, the genetic material may be combined, for example, with proteins or other ***polymers***.

form the microspheres include, for example, proteins such as albumin, synthetic peptides such as polyglutamic acid, and linear and branched oligomers and ***polymers*** of - 25 -

galactose, glucose and other hexosaccharides and ***polymers*** derived from phosphorylated and sulfonated pentose and hexose sugars and sugar alcohols. Carbohydrate ***polymers*** such as alginic acid, dextran, starch and HETA starch may also be 5used. Other natural ***polymers***, such as hyaluronic acid, may be utilized. Synthetic ***polymers*** such as polyethyleneglycol, polyvinylpyrrolidone, polylactide, polyethyleneimines (linear and branched), polyionenes or polyiminocarboxylates may also be employed.

=> d his

(FILE 'HOME' ENTERED AT 08:21:20 ON 15 DEC 2005)

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FILE 'PCTFULL' ENTERED AT 08:21:30 ON 15 DEC 2005
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       343 S L1/TI
L2
LЗ
       990 S L1/AB
L4
      1026 S L2 OR L3
L5
      6164 S POLYANHYDRIDE
L6
      2826 S SULINDAC
L7
       16 S L6 AND L4
L8
        3 S L7 AND L5
       16 S L7 AND POLYMER
L9
L10
        12 S L7 NOT PY>2002
      90719 S CANCER? OR TUMOR? OR CANCER?
L11
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L12 12 S L11 AND L10 L13 89307 S POLYMERIC 89310 S L13 OR L9 L14 L15 **189307 S POLYMER** L16 208045 S L15 OR L13 L17 16 S L16 AND L7 11 S L17 NOT PY>2001 L18 => ---Logging off of STN---=> Executing the logoff script... => LOG Y Connecting via Winsock to STN Welcome to STN International! Enter x:x LOGINID:SSSPTA1642BJF PASSWORD: TERMINAL (ENTER 1, 2, 3, OR ?):2 Welcome to STN International ****** NEWS 1 Web Page URLs for STN Seminar Schedule - N. America "Ask CAS" for self-help around the clock NEWS 2 NEWS 3 JAN 17 Pre-1988 INPI data added to MARPAT NEWS 4 FEB 21 STN AnaVist, Version 1.1, lets you share your STN AnaVist visualization results NEWS 5 FEB 22 The IPC thesaurus added to additional patent databases on STN NEWS 6 FEB 22 Updates in EPFULL; IPC 8 enhancements added NEWS 7 FEB 27 New STN AnaVist pricing effective March 1, 2006 NEWS 8 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes NEWS 9 MAR 22 EMBASE is now updated on a daily basis NEWS 10 APR 03 New IPC 8 fields and IPC thesaurus added to PATDPAFULL NEWS 11 APR 03 Bibliographic data updates resume; new IPC 8 fields and IPC thesaurus added in PCTFULL NEWS 12 APR 04 STN AnaVist \$500 visualization usage credit offered NEWS 13 APR 12 LINSPEC, learning database for INSPEC, reloaded and enhanced NEWS 14 APR 12 Improved structure highlighting in FQHIT and QHIT display in MARPAT NEWS 15 APR 12 Derwent World Patents Index to be reloaded and enhanced during second quarter; strategies may be affected NEWS 16 MAY 10 CA/CAplus enhanced with 1900-1906 U.S. patent records NEWS 17 MAY 11 KOREAPAT updates resume NEWS 18 MAY 19 Derwent World Patents Index to be reloaded and enhanced NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005. V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT http://download.cas.org/express/v8.0-Discover/ **NEWS HOURS** STN Operating Hours Plus Help Desk Availability NEWS LOGIN Welcome Banner and News Items NEWS IPC8 For general information regarding STN implementation of IPC 8 NEWS X25 X.25 communication option no longer available after June 2006 Enter NEWS followed by the item number or name to see news on that specific topic.

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***Take survey: http://www.zoomerang.com/survey.zgi?p=WEB2259HNKWTUW ***

Thank you in advance for your participation.

FILE 'HOME' ENTERED AT 14:54:10 ON 23 MAY 2006

=> file reg COST IN U.S. DOLLARS

SINCE FILE ENTRY SESSION

0.21 0.21

TOTAL

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 14:54:22 ON 23 MAY 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 22 MAY 2006 HIGHEST RN 885262-53-3 DICTIONARY FILE UPDATES: 22 MAY 2006 HIGHEST RN 885262-53-3

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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* The CA roles and document type information have been removed from * the IDE default display format and the ED field has been added, * effective March 20, 2005. A new display format, IDERL, is now

* available and contains the CA role and document type information. *

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> E "SULINDAC"/CN 25

- 1 SULIKOL K/CN E1
- SULIN/CN E2 1
- 1 --> SULINDAC/CN **E**3
- SULINDAC B .OMEGA.-N-METHYL-L-ARGININE SALT/CN E4

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SULINDAC B .OMEGA.-N-NITRO-L-ARGININE METHYL ESTER SALT/
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            SULINDAC B .OMEGA.-N-NITRO-L-ARGININE SALT/CN
E6
            SULINDAC ETHYL ESTER/CN
E7
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E8
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E10
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            SULKA N/CN
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E25
=> S E3
        1 SULINDAC/CN
L1
=> DIS L1 1 SQIDE
THE ESTIMATED COST FOR THIS REQUEST IS 6.36 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y
   ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
RN 38194-50-2 REGISTRY
    1H-Indene-3-acetic acid, 5-fluoro-2-methyl-1-[[4-
  (methylsulfinyl)phenyl]methylene]-, (1Z)- (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
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  (methylsulfinyl)phenyl]methylene]-, (Z)-
OTHER NAMES:
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CN
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CN
    Arthrocine
CN Artribid
CN cis-5-Fluoro-2-methyl-1-[(p-methylsulfinyl)benzylidenyl]indene-3-acetic
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    MK 231
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    Reumyl
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    Sudac
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    Sulreuma
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   DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IMSPATENTS, IPA
   MEDLINE, MRCK*, MSDS-OHS, PHAR, PROMT, PROUSDDR, PS, RTECS*, SCI
    SPECINFO, TOXCENTER, USAN, USPAT2, USPATFULL, VETU
     (*File contains numerically searchable property data)
  Other Sources: EINECS**, WHO
     (**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent
RLP Roles from patents: ANST (Analytical study); BIOL (Biological study);
   PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or
    reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological
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study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)

- RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
- RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

Double bond geometry as shown.

/ Structure 1 in file .gra /

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1474 REFERENCES IN FILE CA (1907 TO DATE)
77 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1477 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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SINCE FILE TOTAL SESSION 7.10 7.31

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 14:55:07 ON 23 MAY 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 23 May 2006 VOL 144 ISS 22 FILE LAST UPDATED: 22 May 2006 (20060522/ED)

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=> IL-12 or IL12 or (IL 12)
IL-12 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
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(IL OR ILS) 1386581 12 9806 IL 12 (IL(W)12) L3 10023 IL-12 OR IL12 OR (IL 12) => s |3 and |1 1477 L1 1.4 **4 L3 AND L1** => s I2 and I3 L5 **4 L2 AND L3** => s 12 (L) 13L6 1 L2 (L) L3 => d ibib L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2005:823135 CAPLUS **DOCUMENT NUMBER:** 143:210437 TITLE: Autologous human dendritic cells fused with autologous cancer cells and human IL-12 for combined immunotherapy of cancer INVENTOR(S): Ohno, Tsuneya PATENT ASSIGNEE(S): USA SOURCE: U.S. Pat. Appl. Publ., 51 pp. CODEN: USXXCO **DOCUMENT TYPE:** Patent LANGUAGE: **English** FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE US 2005180951 20050818 US 2004-778717 Α1 20040212 WO 2005079271 A2 20050901 WO 2005-US4237 20050211 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG PRIORITY APPLN. INFO .: US 2004-778717 A 20040212 => d I5 ibib 1-4 L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2005:823135 CAPLUS **DOCUMENT NUMBER:** 143:210437 TITLE: Autologous human dendritic cells fused with autologous cancer cells and human ***IL*** - ***12*** for combined immunotherapy of cancer INVENTOR(S): Ohno, Tsuneya PATENT ASSIGNEE(S): USA U.S. Pat. Appl. Publ., 51 pp. SOURCE: CODEN: USXXCO **DOCUMENT TYPE:** Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE 20040212 US 2005180951 Α1 20050818 US 2004-778717 WO 2005079271 **A2** 20050901 WO 2005-US4237 20050211 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,

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PRIORITY APPLN. INFO .:

A 20040212

US 2004-778717

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:591975 CAPLUS

DOCUMENT NUMBER: 143:53482

TITLE: Method for inhibiting the growth of gastrointestinal

tract tumors

INVENTOR(S): Egilmez, Nejat K.

PATENT ASSIGNEE(S): USA

U.S. Pat. Appl. Publ., 21 pp. SOURCE:

CODEN: USXXCO **DOCUMENT TYPE:** Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2005147689 20050707 US 2003-748003 Α1 20031230 AA CA 2491338 20050630 CA 2004-2491338 20041223 PRIORITY APPLN. INFO.: US 2003-748003 A 20031230

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:570530 CAPLUS

DOCUMENT NUMBER: 143:91017

TITLE: Use of anti-inflammatory agent, anti-rheumatic agent,

antihistamine and immunosuppressor in conjunction with liposome-mediated gene therapy to reduce inflammation

INVENTOR(S): Ramesh, Rajagopal; Gopalan, Began; Roth, Jack A.

PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA

U.S. Pat. Appl. Publ., 61 pp. SOURCE:

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: **English**

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2005143336 A1 20050630 US 2004-341 20041130 P 20031230 PRIORITY APPLN. INFO.: US 2003-533180P

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:119752 CAPLUS

DOCUMENT NUMBER: 140:162347

TITLE: Compositions comprising tumor-dendritic Fusion cells,

recombinant human interleukin 12, antipyretic and

immunosuppressant for cancer immunotherapy

INVENTOR(S): Ohno, Tsuneya

PATENT ASSIGNEE(S): USA

U.S. Pat. Appl. Publ., 38 pp., Cont.-in-part of U.S. SOURCE:

Ser. No. 12,134.

CODEN: USXXCO

DOCUMENT TYPE: Patent

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FAMILY ACC. NUM. COUNT: 2 PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO. US 2004028663 **A1** 20040212 US 2002-328998 20021224 US 2001-12134 Α1 20011022 US 2002168351 20021114 PRIORITY APPLN. INFO.: US 2000-242154P P 20001020 US 2001-12134 A2 20011022

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((IL(W)12)/CLM)

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=> d ibib 1-5 ANSWER 1 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN L32 2003030821 PCTFULL ED 20030428 EW 200316 ACCESSION NUMBER: **ALBUMIN FUSION FPROTEINS** TITLE (ENGLISH): TITLE (FRENCH): PROTEINES DE FUSION D'ALBUMINE : ROSEN, Craig, A., 22400 Rolling Hill Lane, Laytonsville, MD 20882, US [US, US]; INVENTOR(S): HASELTINE, William, A., 3053 P Street, N.W., Washington, DC 20007, US [US, US] HUMAN GENOME SCIENCES, INC., 9410 Key West Aven PATENT ASSIGNEE(S): Rockville, MD 20850, US [US, US], for all designates States except US; ROSEN, Craig, A., 22400 Rolling Hill Lane, Laytonsville, MD 20882, US [US, US], for US only; HASELTINE, William, A., 3053 P Street, N.W., Washington, DC 20007, US [US, US], for US only AGENT: WALES, Michele, M.\$, Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, MD 20850\$, US LANGUAGE OF FILING: **English** LANGUAGE OF PUBL.: **English** Patent **DOCUMENT TYPE:** PATENT INFORMATION: NUMBER KIND DATE WO 2003030821 A2 20030417 DESIGNATED STATES AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR W: CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW RW (ARIPO): GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW RW (EAPO): AM AZ BY KG KZ MD RU TJ TM AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC RW (EPO): NL PT SE SK TR RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG APPLICATION INFO .: WO 2002-US31794 A 20021004 20011005 PRIORITY INFO .: US 2001-60/327,281 ANSWER 2 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN 2002077186 PCTFULL ED 20021011 EW 200240 ACCESSION NUMBER: **HUMAN SECRETED PROTEINS** TITLE (ENGLISH): PROTEINES SECRETEES PAR L'ETRE HUMAIN TITLE (FRENCH): INVENTOR(S): ROSEN, Craig, A., 2240 Rolling Hill Lane, Laytonsville, MD 20882, US [US, US]; RUBEN, Steven, M., 18528 Heritage Hills Drive, Olney, MD 20832, US [US, US] HUMAN GENOME SCIENCES, INC., 9410 Key West Aven PATENT ASSIGNEE(S): Rockville, MD 20850, US [US, US], for all designates States except US; ROSEN, Craig, A., 2240 Rolling Hill Lane, Laytonsville, MD 20882, US [US, US], for US only; RUBEN, Steven, M., 18528 Heritage Hills Drive, Olney, MD 20832, US [US, US], for US only HOOVER, Kenley, K.\$, Human Genome Sciences, Inc., 9410 AGENT: Key West Avenue, Rockville, MD 20850\$, US LANGUAGE OF FILING: English LANGUAGE OF PUBL.: **English DOCUMENT TYPE:** Patent PATENT INFORMATION: NUMBER KIND DATE WO 2002077186 A2 20021003 **DESIGNATED STATES**

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L32
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                        2002072763 PCTFULL ED 20020927 EW 200238
ACCESSION NUMBER:
                    NUCLEIC ACIDS, PROTEINS, AND ANTIBODIES
TITLE (ENGLISH):
TITLE (FRENCH):
                    ACIDES NUCLEIQUES, PROTEINES ET ANTICORPS
INVENTOR(S):
                   SHI, Yanggu, 437 West Side Drive, Apt. 102,
            Gaithersburg, MD 20878, US [US, US];
            NI, Jian, 17815 Fair Lady Way, Germantown, MD 20874, US
            [CN, US];
            RUBEN, Steven, M., 18528 Heritage Hills Drive, Olney,
            MD 20832, US [US, US]
PATENT ASSIGNEE(S):
                       HUMAN GENOME SCIENCES, INC., 9410 Key West Aven
            Rockville, MD 20850, US [US, US], for all designates
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            SHI, Yanggu, 437 West Side Drive, Apt. 102,
            Gaithersburg, MD 20878, US [US, US], for US only;
            NI, Jian, 17815 Fair Lady Way, Germantown, MD 20874, US
            [CN, US], for US only;
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            MD 20832, US [US, US], for US only
AGENT:
                HOOVER, Kenley, K.$, Human Genome Sciences, Inc., 9410
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LANGUAGE OF FILING:
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LANGUAGE OF PUBL.:
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TITLE (FRENCH):
                    NUCLEIC ACIDS, PROTEINS, AND ANTIBODIES
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INVENTOR(S):
                   ROSEN, Craig, A.;
            BARASH, Steven, C.;
            RUBEN, Steven, M.
PATENT ASSIGNEE(S):
                       HUMAN GENOME SCIENCES, INC.;
            ROSEN, Craig, A.;
            BARASH, Steven, C.;
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20000224 20000302

APPLICATION INFO.: WO 2001-US1348 A 20010117 PRIORITY INFO.: US 2000-60/179,065 20000131

US 2000-60/180,628

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PCTFULL COPYRIGHT 2006 Univentio on STN ANSWER 5 OF 10 L32 ACCESSION NUMBER: 2001055328 PCTFULL ED 20020827 TITLE (ENGLISH): NUCLEIC ACIDS, PROTEINS, AND ANTIBODIES TITLE (FRENCH): ACIDES NUCLEIQUES, PROTEINES ET ANTICORPS ROSEN, Craig, A.; INVENTOR(S): BARASH, Steven, C.;

RUBEN, Steven, M.

PATENT ASSIGNEE(S): **HUMAN GENOME SCIENCES, INC.;** ROSEN, Craig, A.; BARASH, Steven, C.; RUBEN, Steven, M.

DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER KIND DATE

WO 2001055328 A2 20010802

DESIGNATED STATES

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APPLICATION INFO.: WO 2001-US1359 A 20010117

PRIORITY INFO.: US 2000-60/179,065 20000131

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L32 ANSWER 6 OF 10 PCTFULL COPYRIGHT 2006 Univentio on STN ACCESSION NUMBER: 2001055205 PCTFULL ED 20020827 TITLE (ENGLISH): NUCLEIC ACIDS, PROTEINS, AND ANTIBODIES TITLE (FRENCH): ACIDES NUCLEIQUES, PROTEINES ET ANTICORPS INVENTOR(S): ROSEN, Craig, A.;

BARASH, Steven, C.;

RUBEN, Steven, M.

PATENT ASSIGNEE(S): HUMAN GENOME SCIENCES, INC.; ROSEN, Craig, A.;

BARASH, Steven, C.; RUBEN, Steven, M. YPE: Patent

US 2000-60/229,344

US 2000-60/229,343

DOCUMENT TYPE: Paten PATENT INFORMATION:

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TITLE (FRENCH):
INVENTOR(S):
                   ROSEN, Craig, A.;
            BARASH, Steven, C.;
            RUBEN, Steven, M.
                       HUMAN GENOME SCIENCES, INC.;
PATENT ASSIGNEE(S):
            ROSEN, Craig, A.;
            BARASH, Steven, C.;
            RUBEN, Steven, M.
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            RUBEN, Steven, M.
                       HUMAN GENOME SCIENCES, INC.;
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     ANSWER 9 OF 10
                       PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER:
                         2001055164 PCTFULL ED 20020827
                    NUCLEIC ACIDS, PROTEINS, AND ANTIBODIES
TITLE (ENGLISH):
TITLE (FRENCH):
                    ACIDES NUCLEIQUES, PROTEINES ET ANTICORPS
INVENTOR(S):
                   ROSEN, Craig, A.;
            BARASH, Steven, C.;
            RUBEN, Steven, M.
PATENT ASSIGNEE(S):
                        HUMAN GENOME SCIENCES, INC.:
            ROSEN, Craig, A.;
            BARASH, Steven, C.;
            RUBEN, Steven, M.
DOCUMENT TYPE:
                      Patent
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PATENT INFORMATION:

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DESIGNATED STATES AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU W: CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN

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KIND

IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW MZ SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG APPLICATION INFO.: WO 2001-US1566 A 20010117 PRIORITY INFO .: US 2000-60/179,065 20000131 US 2000-60/180,628 20000204 US 2000-60/184,664 20000224 US 2000-60/189,874 20000316 US 2000-60/227,182 20000822 US 2000-60/231,413 20000908 US 2000-60/250,160 20001201 US 2000-60/251,988 20001205 US 2000-60/256,719 20001205 US 2000-60/251,479 20001206 US 2000-60/251,989 20001208 L32 **ANSWER 10 OF 10** PCTFULL COPYRIGHT 2006 Univentio on STN ACCESSION NUMBER: 2001054733 PCTFULL ED 20020827 TITLE (ENGLISH): NUCLEIC ACIDS, PROTEINS AND ANTIBODIES TITLE (FRENCH): ACIDES NUCLEIQUES, PROTEINES ET ANTICORPS INVENTOR(S): ROSEN, Craig, A.; BARASH, Steven, C.: RUBEN, Steven, M. PATENT ASSIGNEE(S): **HUMAN GENOME SCIENCES, INC.;** ROSEN, Craig, A.; BARASH, Steven, C.; RUBEN, Steven, M. DOCUMENT TYPE: Patent PATENT INFORMATION: NUMBER KIND DATE WO 2001054733 A1 20010802 **DESIGNATED STATES** W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW MZ SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG APPLICATION INFO.: WO 2001-US1312 A 20010117 PRIORITY INFO .: US 2000-60/179,065 20000131 US 2000-60/180,628 20000204 US 2000-60/184,664 20000224 US 2000-60/186,350 20000302 US 2000-60/189,874 20000316 US 2000-60/190,076 20000317 US 2000-60/198,123 20000418 US 2000-60/205,515 20000519 US 2000-60/209,467 20000607 US 2000-60/214,886 20000628 US 2000-60/215,135 20000630 US 2000-60/216,647 20000707 US 2000-60/216,880 20000707 US 2000-60/217,487 20000711 US 2000-60/217,496 20000711 US 2000-60/218,290 20000714 US 2000-60/220.963 20000726 US 2000-60/220,964 20000726 US 2000-60/225,757 20000814 US 2000-60/225,270 20000814 US 2000-60/225,447 20000814 US 2000-60/225,267 20000814 US 2000-60/225,758 20000814 US 2000-60/225,268 20000814 US 2000-60/224,518 20000814 US 2000-60/224,519 20000814 US 2000-60/225,759 20000814 US 2000-60/225,213 20000814 US 2000-60/225,266 20000814

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FULL ESTIMATED COST

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